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ABSTRACT

This presentation summarizes findings from a Maryland case study of policies and practices affecting the transition of students from high school to college. A particular focus is the role of a formal, high-profile statewide K-16 structure, the Maryland K-16 Partnership for Teaching and Learning, in promoting policies and practices that help improve the transition for all students. The Maryland case study is one of six studies being conducted as part of "The Bridge Project: Strengthening K-16 Transition Policies." An underlying assumption was that a lack of consistency in curricular content and academic expectations between the K-12 system and higher education, coupled with a lack of communication between these two sectors, causes many problems in the transition to college. This discussion highlights phase 1 of the Bridge Project, which focuses on freshman admissions and initial course placement. The second part of the discussion presents initial findings from phase 2 for Maryland. Forty-one key people associated with the University of Maryland at College Park and Towson University were interviewed for phase 1. Findings of the phase 1 study suggest that Maryland students generally have reasonable access to its 4-year public institutions, although placement and remediation continue to be a concern. The study also revealed strengths and weaknesses of the K-16 Partnership. The phase 2 study used survey responses from 232 9th and 11th graders at 4 high schools. Preliminary findings from this study show confusion on the part of Maryland high school students about requirements and placement in Maryland's 4-year public colleges. (Contains 72 references.) (SLD)

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The High School to College Transition: A Case Study of Policies, Practices, and K-16 Reforms in Maryland

Part I

Toby Milton
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Part II

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A Paper Presented at the Annual Conference of the
Association for the Study of Higher Education
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Table of Contents

Overview.....1
- Purpose and Scope of the Study
- Focus of the Paper

Part 1.....3

Introduction
- Phase 1 Methodology

An Overview of Maryland's Educational Systems.....5
- Maryland's Higher Education System
- Maryland's K-12 Education System

Freshmen Admissions and Placement Policies.....9
- The Role of the State Coordinating Agency
- University System of Maryland
- University of Maryland College Park
- Towson University
- High School Graduation Requirements and Assessment Testing

Maryland's K-16 Partnership.....29
- Structure and Functions of the Partnership
- Accomplishments
- University System of Maryland and Campus K-16 Structures
- Participant and Campus Perspectives on the K-16 Partnership

Analysis and Conclusions.....36
- Access to Public Higher Education
- Placement and Remediation Policies and Practices
- Aligning Higher Education Admissions Requirements with High School Assessment Testing
- K-16 Communication and Collaboration

Part II The Secondary School Level.....42
- Introduction
- Review of Literature
  - K-16 Policy
  - College Choice
  - Aspirations
  - College Search
  - Conclusion

Survey Data.....53
- Sample and Methods
- Findings
- Demographics
- High School Performance and Aspirations
- Knowledge of Tuition and Fees
- Student Knowledge of High School Course Requirements
- Student Knowledge of Selection Criteria

Awareness of Affirmative Action
Knowledge of Placement Testing Requirements
Knowledge of Selectivity
Exposure to Higher Education
Summary of Quantitative Findings

Qualitative Interview Data.....70
Students' Interest in Communication with Teachers
Teachers' Knowledge of the College Admissions Process in Maryland
Information Teachers Provide
Teachers' View of Their Role in the College Choice Process
Counselors
Summary

Overview

Purpose and Scope of the Study

This presentation summarizes findings from a Maryland case study of policies and practices affecting the transition of students from high school to college. A particular focus of this study is the role of a formal, high profile statewide K-16 structure, the Maryland K-16 Partnership for Teaching and Learning, in promoting policies and practices that help improve this transition for all students.

The Maryland Case Study is one of six comprehensive state case studies being conducted as part of "The Bridge Project: Strengthening K-16 Transition Policies." The other five states being studied are California, Georgia, Illinois, Oregon and Texas. The Bridge Project is a five-year project being directed at the Stanford Institute on Higher Education Research with support from The Pew Charitable Trusts and the National Center for Postsecondary Improvement (NCPI). NCPI is sponsored in part by the U.S. Department of Education's Office of Educational Research and Improvement.

An underlying assumption of the project is that a lack of consistency in curricular content and academic expectations between K-12 and higher education, coupled with a lack of communication between these two sectors, causes many problems in the high school to college transition. These include decreased access to four-year colleges and universities, particularly for under-represented and economically disadvantaged students; an unacceptably high need for remedial education in colleges and universities; and unnecessary costs and administrative burdens for higher education institutions. New educational reforms, although sharing the same goal of improving education, may in fact be increasing the problems because of the lack of coordination among the various levels

of education (Kirst, 1998). According to Kirst (1998, p.1), "The bridge that once led students across the secondary-postsecondary divide has been weakened by conflicting concepts and opposing forces, and it is becoming increasingly unclear how many of the nation's students will be able to negotiate a successful path from high school to college." Consequently, a greater understanding of the disjunctures between elementary/secondary and higher education curricula content, testing practices, and student expectations could help provide a basis for lessening these disparities and, thereby, improving opportunities for all students to gain access to, and succeed in higher education.

Focus of the Paper

The Bridge Project includes three major phases. Phase I seeks to understand policies and practices related to freshman admissions and initial course placement in the case study states. It also examines secondary school curricula and testing requirements in these states and analyzes the compatibility of content and assessment across the K-12 and higher education sectors. Phase II seeks to understand how these policies and practices are transmitted to, and understood by students, parents and school personnel, including teachers, counselors, and administrators. Phase III uses the findings from the first two phases to formulate policy recommendations and guidelines.

The Maryland case study focuses on the first two phases of the Bridge Project. The first part of this presentation highlights findings from the Phase I research conducted in Maryland and then discusses their implications for future K-16 reforms. The second part presents initial findings from Phase II of the Maryland case study.

Part 1 Higher Education and School System Policies and Practices

Introduction

This part of the paper highlights key findings from Phase I of the Maryland case study. Following a brief overview of Maryland's elementary/secondary and higher education systems, the paper describes and analyzes findings with respect to freshman admissions and placement in Maryland's largest public universities, the University of Maryland at College Park (UMCP) and Towson University (TU). Second, the paper examines current and proposed statewide secondary school curricula and testing requirements for high school graduation, including the High School Assessment program, a high stakes testing initiative currently being developed in the state. Second,. Third, the paper describes the state's K-16 Partnership, which was established in 1995 through a formal commitment of the CEO's of the state's major education agencies, the University System of Maryland (USM), the Maryland Higher Education Commission (MHEC), and the Maryland State Department of Education (MSDE) and considers the role and effectiveness of this partnership in fostering connections and collaborations between K-12 and postsecondary education across the state.

Phase I Methodology

The methodology used in conducting the Maryland case study was based on protocols and guidelines developed by Stanford's "Bridge Project" staff for use in the project's six state case studies. In accordance with this design, two public universities, UMCP and Towson, were selected as the sites for the in-depth study of admissions and placement policies and practices in the state. These campuses were chosen as the two

Maryland institutions for a number of reasons. First, both are part of the University System of Maryland (USM), which includes 11 of the state's 13 four-year public colleges and universities. Second, they have very different missions: UMCP is Maryland's major graduate/research institution while Towson is a comprehensive university historically focusing on undergraduate and master's education. Third, both enroll relatively large numbers of first-time freshman (in Fall 1999, 3,906 at UMCP and 2,115 at TU) and, together, serve 38,698 undergraduates, or 48 percent of USM's statewide undergraduate population (University System of Maryland, 2000). Fourth, the institutions are located in Maryland's two major population centers. UMCP is in Prince George's County, adjacent to Washington, D.C. and Towson is in Baltimore County, just outside Baltimore City. Finally, given their size and the diversity of their student populations, both institutions were considered to be the most suitable Maryland campuses to be studied in Phase II of the project. Senior officials at both campuses, as well as at the USM Chancellor's office, were contacted to obtain permission to include these campuses in the study. They readily agreed to UMCP's and Towson's participation in the project and volunteered to support and assist with project activities.

Senior officials at other agencies and organization identified as critical sources of information for the study, including the Maryland K-16 Partnership, the Maryland State Department of Education (MSDE), the Maryland Higher Education Commission (MHEC), and the Baltimore County Public Schools (BCPS) also were asked for their cooperation and support of the study. All willingly agreed and identified appropriate key contact persons who could provide required information and participate in interviews.

As a first step in the data collection process, relevant documents, statistical data, and lists of potential interviewees were requested and obtained from all participating institutions and agencies. This information was then reviewed and used to tailor model "Bridge Project" interview guides to the Maryland context and to the roles and responsibilities of potential interviewees. Meetings and interviews with key persons were initiated in Spring 1998 and completed in February 2000. A total of 41 individuals were interviewed during 23 meetings and individual interview sessions. The information obtained from the documents and interviews was then integrated and summarized to develop detailed descriptions of policies and practices related to undergraduate student admission and placement at the system, university, elementary/secondary school and state education agency levels. These summaries were sent to appropriate interviewees for verification of their accuracy and completeness. The descriptive information was then analyzed to identify the compatibility of key K-12 and higher education policies and practices. This analysis incorporated the insights and perspectives of the interviewees as well as those of the project research team.

An Overview of Maryland's Educational Systems

Maryland's Higher Education System

Maryland is a relatively small state with a population of 5,171,634 in 1999. It has 53 higher education institutions including 13 four-year public universities and colleges, 16 community colleges, and 24 private colleges and universities (Maryland Higher Education Commission, 1999). These institutions have very diverse missions and are distributed geographically across most of the state. However, leaders in largely rural

Western Maryland periodically express concerns that access to four-year institutions is not ideal given the distances involved. Concerns also have been expressed about whether there are an excessive number of modestly enrolled public four-year institutions in the Baltimore area. Strong articulation policies and procedures have been developed to facilitate the transition of students from the four-year and two-year institutions. Maryland also has approximately 128 proprietary and other postsecondary institutions.

Statewide postsecondary education planning, coordination, and regulation is provided by the Maryland Higher Education Commission (MHEC). The Commission is a regulatory coordinating agency, not a governing board. Therefore, it does not play a direct role in the administration of the institutions or in the development of their operational/administrative policies and procedures. However, it is responsible for approving the missions of the public institutions and their plans to implement new academic programs in order to ensure the State has a diverse, efficient system of higher education that assures adequate student access. In addition, certain general policies and regulations adopted by the Commission establish parameters limiting institutional discretion in setting policies and procedures. Examples are in the areas of admissions, faculty qualifications, the transfer of academic credit, and institutional publications.

The University System of Maryland (USM) is responsible for the governance of 11 of the 13 state's four-year public institutions. The governance of the USM is vested in a 17 member Board of Regents which under state law has been granted considerable amount of autonomy (State of Maryland, 1999). The Chancellor serves as the Chief Executive Officer of the USM as well as Chief of Staff to the Board of Regents.

In Fall 1999, the USM enrolled 108,485 students, of which 80,729 were undergraduates (University System of Maryland, 2000). During the past decade, the number of Maryland students enrolled remained relatively stable; however; considerable growth is projected for the next ten years. Current plans call for this growth to be accommodated by increasing enrollment at the comprehensive universities while keeping the University of Maryland at College Park at its current size. In addition, one four-year institution is piloting a "two plus two" cooperative arrangement in which it offers junior and senior level courses at community college sites. Finally, a cooperative higher education center, served by several institutions, is being developed in Montgomery county, just north of Washington, D.C. and plans also have been announced for creating such a center in Western Maryland.

Maryland's K-12 Education System

Maryland's 24 local school districts are contiguous with its local government jurisdictions which include 23 counties and Baltimore City. As a result, despite the state's relatively small population, it has some of the largest school systems in the nation. A 12 member State Board of Education sets education policies and standards for pre-kindergarten through high school, monitors school performance and provides some funding for school construction. It appoints a State Superintendent of Schools to head the State Department of Education (MSDE). Except for setting budget levels and withholding money from low-performing schools, the state legislature is not directly involved in setting education policy in Maryland. The State's small size, as well as its limited number of districts enables MSDE, as well as the State's higher education institutions, to work closely with local school superintendents and their staffs..

In September 1999 Maryland's 1,326 public schools enrolled 846,582 students in grades pre-K through 12 and the state's 1,113 private schools enrolled an additional 181,086 students. Statewide, 54 percent of the September 1999 public school student population was white, 37 percent African/American, four percent Asian and four percent Hispanic. However, there are considerable differences in the racial/ethnic composition of the State's districts, with African/Americans constituting large majorities in two of the state's large school systems (Baltimore City and Prince George's County) while white students comprised over 80 percent of the enrollment in nine districts. In 1999, 46,821 students graduated from the state's public high schools. Based on a statewide survey of seniors, 73 percent intended to attend a college or university, three percent expected to attend a trade or business school, and 15 percent expected to work or enter the military (Maryland State Department of Education, 1999; *Ibid.*, 2000; *Ibid.*, September 30, 2000).

MSDE has been actively involved in a major educational reform initiative for more than ten years. The Governor's 1989 Commission on School Performance reviewed the State's public school systems and recommended that it establish comprehensive statewide accountability, assessment and reporting systems. As a result, the Maryland State Board for Education adopted the reform initiative entitled *Schools for Success*, one of the first state reform movements to "hold schools accountable for a high quality education and measurable results for all students (Maryland State Department of Education, 1997, p.1). This initiative is based on the premise that all "children can learn" and should be exposed to "equally rigorous content" (Maryland State Department of Education, March 1998, p. 1). The Maryland School Performance Assessment Program (MSPAP), a program of tests based in Maryland's learning outcomes that are

administered annually in grades 3, 5 and 8, with results used only in school-level performance reports, is a major component of the *Schools for Success* initiative. Other components include the Maryland School Performance Reports which contain the test results plus data on other school performance indicators; the Maryland School Performance Program, a mandated school improvement process; State Initiatives for Low Performing Schools, a school reconstitution program; and School Performance Recognition Awards, monetary awards for schools making substantial improvement (Maryland State Department of Education, 1997; *Ibid.*, March, 1998, *Ibid.*, 2000). Two additional components of the *Schools for Success* reform program, the High School Improvement Program (HSIP) and the High School Assessments (HSA), currently are being developed. They are intended to extend the high expectations and standards that are incorporated in the MSPAP tests to grade 12 by requiring students to pass subject matter tests to receive a high school diploma. As discussed below, how and when the results of proposed subject matter assessment tests will be implemented as high school graduation requirements is still to be determined by the Maryland State Board of Education.

Freshmen Admissions and Placement Policies

The Role of the State Coordinating Agency

Admissions. MHEC has established, through the *Code of Maryland Regulations* (Maryland Higher Education Commission, February 1999), very broad policies for admissions that apply to all Maryland institutions. These policies are consistent with the historic autonomy institutions have had in setting their own admissions policies. Essentially, they set school graduation (or its equivalent) as the minimum educational

qualification for admission and require each institution to establish admissions policies that are nondiscriminatory and consistent with their stated missions. These regulations concerning admissions are not monitored but are enforced on an exception basis, meaning MHEC only reviews institutional admissions practices: 1) at the time of an institution's initial approval to operate or when some other approval action is required, 2) if complaints are made against an institution related to admissions, or 3) if an institution is undergoing an institutional evaluation for some other reason.

Placement and Remediation. MHEC does not mandate policies and standards for course placement and remedial education across the state's higher education institutions, allowing each campus to decide which students should be tested, select their own instruments, and determine their own cutoff scores for required remediation. However, through its general authority to determine what is appropriately considered a college level course, MHEC has had a major influence on mathematics placement and remediation by mandating that intermediate algebra must be a prerequisite for any mathematics course granting college credits.

In 1996, because of continued legislative concerns regarding the appropriateness and costs of remedial education at colleges and universities, particularly at four-year institutions, MHEC conducted a statewide study of remedial education at Maryland public campuses. The findings of this study confirmed the considerable variety of tests, cutoff scores, and policies on which groups of students require assessment. They also indicated that substantial numbers of students entering Maryland's public campuses required remediation, including almost half of new students enrolling from high school (60 percent at community colleges and 25 percent at four-year campuses). Finally, the

study identified a number of policy issues regarding placement and remedial education including:

- The extent remedial education should be offered at public institutions, particularly 4-year campuses;
- Public funding for remedial education;
- The effectiveness of remedial education programs;
- Differences in the need for remediation among specific groups;
- The adequacy of current high school graduation standards for college success;
- Ways to address institutional differences in the definitions of "remediation" and "college-level work" arising from the lack of common policies, instruments and standards across campuses (Maryland Higher Education Commission, 1998).

New legislation, passed in 1999, now requires MHEC to cooperate with the public and non-public campuses, the state's K-16 Partnership, MSDE, and the local school systems to establish a college preparation and intervention program to help disadvantaged students obtain the academic background they need to attend and succeed in college (State of Maryland, 1999b). The Governor is required to include an annual appropriation of at least $750,000 for this program. In addition, in the Spring 2000 session, legislation was passed mandating that MHEC establish a task force to develop a comprehensive strategy to ensure that disadvantaged and capable students have adequate opportunities to successfully matriculate and graduate from institutions of higher education by December 2001.

Student Outcomes Reporting. MHEC's Student Outcome and Achievement Report (SOAR) provides important information about students preparation for college,

their need for remediation and performance in the first year of higher education for Maryland's public two and four-year colleges. Annual reports include information about the academic performance of recent high school graduates, including SAT and ACT test scores; students' need for remedial work in mathematics, English and reading; students' grades in their first mathematics and English courses; students' cumulative grade point averages after their first year; and students' Fall to Spring persistence in their first year after high school graduation. MHEC uses this data to conduct studies on performance in college, including its studies of remedial education. However, because, until recently, Maryland campuses did not have any common policies, instruments and standards, there are concerns that the reported remediation rates are not comparable across higher education institutions, and that remediation and performance rates for high schools and school system are greatly affected by the mix of schools their students attend. Some standardization was initiated in Fall 1998, when all community colleges voluntarily agreed to adopt uniform standards for student assessment and placement in reading, writing and mathematics (Maryland Higher Education Commission, 1998). However, the four-year institutions continue to use their own institutional standards and cutoff scores and according to several of those interviewed for this study, at their institutions there is little interest in adopting uniform requirements.

University System of Maryland

Admissions Policy. The current USM admissions policy initially was adopted in 1991. In 1996, it was revised to incorporate a statement recognizing the anticipated changes in high school graduation requirements that will result from implementing MSDE's High School Assessment examinations and directing that the System "policy

should be reviewed and revised as necessary to accommodate that transition" (University System of Maryland Board of Regents, January 11, 1990, p. III-4.00-6). The inclusion of this statement reflects the current USM Chancellor's strong commitment to the K-16 concept and to the alignment of high school and college assessments.

USM's admission policy grants institutions substantial autonomy to establish their own admissions policies and procedures (University System of Maryland Board of Regents, January 11, 1990). Basically, it requires students applying for admission as freshman within three years of high school graduation to have a high school GPA of C or better, submit a score on a national standardized admission test such as the ACT or SAT, and have a grade of C or better in 19 of 21 required year long high school courses that include: English (4 courses); Social Science/History (3 courses), Science (3 courses with at least 2 lab courses and 2 different subjects); Mathematics (3 courses, Algebra I and II and Geometry); Foreign Language or Advanced Technology Education (2 courses) and academic electives (3 courses). The extent of campus flexibility in determining admissions standards is demonstrated by the lack of any minimum SAT (or ACT scores), the minimal GPA criteria of only a C or better (with no discussions of how this GPA is to be calculated), and the absence of any clear definitions regarding the content of the required courses. To provide some guidance on course content, in 1991, USM distributed a document discussing its expectations to all high schools and school systems across the state (Interview, USM, 1/14/2000).

Placement and Remedial Education Policies. The USM does not have any policies related to placement and/or developmental/remedial education. Therefore, within the guidelines set under MHEC policies (e.g. college level math is defined as math that

requires intermediate algebra as a prerequisite) each USM campus currently can establish its own policies and procedures regarding placement testing and remedial course work. Policy making in these areas is viewed as a campus prerogative Thus, despite the considerable interest expressed by various statewide bodies, including MHEC and the K-16 Remediation Workgroup, in establishing uniform practices for placement testing, and for determining when developmental/remedial work should be required, System officials believe that this must occur through consensus rather than by fiat.

University of Maryland at College Park

Institutional Background. UMCP has always been the major public graduate/research institution in Maryland, but was not officially designated as the state's "flagship campus" until 1988, a designation which both the Maryland legislature and the USM have continued to support (Interviews, UMCP, 9/10/99, 12/22/99; Interview, USM, 1/10/2000). The University's 1999 mission statement highlight's its focus on achieving excellence and provides a clear framework for its undergraduate admissions policies in stating that:

> The University is committed to increasing the number of exceptionally able undergraduate students and providing them with innovating and challenging programs ... (University of Maryland Mission Statement, January 2000, p. 1).

The university's progress towards meeting this goal also is demonstrated by the fact that, in 1999, it jumped from 30th to 22nd in the U.S. News and World ranking of the top 50 national universities (*Outlook*, August 13, 1999).

In Fall 1999, UMCP enrolled a total of 32,864 students, of whom 24,717 (75 percent) were undergraduates. The total number of students has been relatively stable since 1992, following a five year period in which UMCP's enrollment was reduced by approximately ten percent (from 36,681 in Fall 1988 to 32,923 in Fall 1992). This planned decline was consistent with the University's goal of becoming an increasingly selective institution with a greater emphasis on research and graduate programs. (University of Maryland Office of Institutional Studies, 1999; University System of Maryland, 1998; *Ibid.*, 1999).

Among all undergraduates, almost 88 percent were enrolled as full-time students, 74 percent were Maryland residents, 49 percent were female, 33 percent were minority group members (largely African American (14 percent) and Asian students (13.6 percent). In Fall 1999, UMCP's 3,937 new freshmen constituted approximately 16 percent of the undergraduate student population. In part, this relatively low percent reflects the large number of students (2,460 in Fall 1999) that generally transfer to UMCP both from Maryland's community colleges and from other public four year institutions in the state (University of Maryland Office of Institutional Studies, September 22, 1999).

Applications, Admission and Yield. UMCP's application pool has been getting larger and academically stronger every year, largely because of the growth in out-of-state applicants (Interviews, UMCP, 9/12/99). Given the university's commitment to not increasing undergraduate enrollment, this has resulted in a steady decline in the percent accepted during the 1990s, from 73 percent in 1992 to 64 percent in Fall 1998, followed by a dramatic decline to 54 percent in 1999. (University of Maryland Office of Institutional Studies, 1999; University System of Maryland, 1999). The campus is proud

of its increasing selectivity and the academic credentials of its accepted students. For new freshman entering in Fall 1999, average high school GPA was 3.61 and the midrange (25^{th} to 75^{th} percentiles) composite SAT scores ranged from 1150 to 1320 with nearly one-third (1,238) having combined SAT scores of 1300 or higher (University System of Maryland, 2000).

Admissions Policies and Practices. With its autonomy, and the generally non-prescriptive nature of the USM's Policy on Undergraduate Admissions, UMCP has the flexibility to develop and implement policies and practices that promote achieving its goals. Not surprisingly, campus staff do not want to see USM play a stronger role in admissions (Interview, UMCP, 12/22/99). The most significant factors affecting campus admissions and merit aid policies and practices at UMCP are its role as the designated flagship in the state and its goal of becoming one of the "top ten" research universities in the nation.

The formal UMCP admissions requirements differ from the USM policy (see requirements outlined above) in only two areas. First, it requires two years of a foreign language and does not allow the USM option of using tech-prep or service learning courses as an alternative (even though some high schools would prefer to substitute proficiency in a computer language (Interviews, UMCP, 9/10/99). Second, it specifies completion of Algebra I without including the Applied Math I and II alternative noted in the systemwide policy. Like the USM policy, no minimum SAT or ACT scores are specified and there is a 2.0 minimum GPA requirement. However, the UMCP policy document states it is "a competitive admission policy, with priority given to those students with the most outstanding academic credentials (University of Maryland, August

1991, p.1). It also emphasizes the importance of factors in addition to test scores and GPA in making admissions decisions, stating that those responsible for making admissions decisions "may review an applicant in light of his/her unique talents and abilities such as accomplishments in fine arts, leadership and athletics" (University of Maryland, August 1991, p.1). Some colleges and programs (e.g. engineering, music) have additional, more selective admissions standards. Admissions staff selects students for these units and, automatically considers those who they do not meet these criteria on the same basis as regular applicants.

Formal admission requirements are used as minimums in a relatively more "qualitative" approach to admission decision, similar to those used in many highly selective private institutions. According to the Admissions Office staff, most high school students currently applying to UMCP are capable of being successful university students (Interview, UMCP, 9/10/99). Thus, the process of selecting entering freshmen has become increasingly subject to complex judgments, with fewer decisions made on the basis of traditional quantitative criteria. Beyond the required minimums, there are no absolute quantitative standards or any academic index, such as a grid based on SAT scores and GPA, used in the selections process. All decisions are made based on reviews of the complete application folders. For the class entering in Fall 1999, this involved reviews of more than 18,000 applications (Interview, UMCP, 9/10/99).

Academic achievement remains the primary consideration in all reviews. The type of curriculum and participation in honors, AP and other high-level course work are important considerations. For example, a student with a 3.0 GPA who completed many AP classes may be more likely to be admitted than one with a higher GPA based on less

academically challenging courses. However, many other factors may also be considered in the admissions process including SAT II and Advanced Placement scores and class rank if available, application essays, recommendation letters, Maryland residency, in-state geographic diversity, extracurricular, work and community activities, and the applicant's personal background in terms of whether or not he/she is a first generation college student or is economically disadvantaged, race/ethnicity, legacy status, extenuating circumstances, special talents/skills, breadth of experience and demonstrated interest in the university (University of Maryland Office of Admissions, November 1998).

Placement and Remediation. At present, UMCP does not require placement testing or offer developmental/remedial courses in English and Reading. Placement testing in these two subjects was discontinued more than five years ago. The rationale for this decision was that as the quality of admitted students improved, most were prepared for college-level courses. Those interviewed were unaware of any difficulties although some emphasized the importance of having the Writing Center available for students needing assistance. However, none of those interviewed cited, or appeared to be aware of, any formal studies of the effects of eliminating placement testing in reading or English. (Interviews, UMCP, 9/10/99, 10/11/99, 11/4/99, 12/22/99). These campus perceptions are confirmed by data from MHEC's Student Outcome Achievement Reports which indicate that UMCP students do perform reasonably well in their first English courses (Maryland Higher Education Commission, September, 1999).

UMCP does require new freshmen, except those with credit for calculus, to take its in-house mathematics placement test that is based on a test developed by the

Mathematics Association of America. Test results are used to sort students into various mathematics credit and non-credit course sequences. In Fall 1998, approximately 18 percent of all new freshmen were placed into Math 001 or 002, UMCP's two non-credit developmental/remedial courses (which carry a special fee of $200). Most of those who enrolled in these courses were reasonably successful with over 70 percent earning passing grades. The remaining students were placed into sequences of credit courses in accordance with their test scores, interests and particular programs of study. Placement is related to course pre-requisites specified by the Department of Mathematics. There is currently considerable controversy about the validity of the in-house placement test, the required special fee, and what students really need to know in mathematics to enter higher education. Given these issues, in December 1999 a committee with representatives from numerous campus departments was established to review the placement test, remedial courses, and other aspects of the Mathematics department's developmental/remedial program (*The Diamondback,* November 29, 1999).

In general, academic placement and developmental/remedial education are not directly addressed in published materials such as viewbooks, the general campus website, or the freshman application brochure. However, information about mathematics placement testing is included in UMCP's catalog as part of the section on the required Fundamental Studies component of CORE, UMCP's required General Education program (University of Maryland, 1999).

Towson University

Institutional Background. Towson is the largest comprehensive university in the Baltimore area and, after the UMCP, the second largest university in Maryland. Since it was established in 1866, it has evolved from a normal school to liberal arts college and was recognized as a university in 1976. It became part of the University System of Maryland when the latter was established in 1988 (Towson University, 1998-99)..

In Fall 1999, Towson enrolled a total of 16,647 students, of whom 13,981 (84 percent) were undergraduates. This was the largest number in its history; however, the university's enrollment fluctuated considerably in the past fifteen years and has reached 15,910 by Fall 1986. Among all undergraduates, almost 83 percent were enrolled as full-time students, 62 percent were female and 15 percent were minority group members (largely African-Americans). Most were from Maryland (84 percent), with the largest percentage of the 11,277 Maryland undergraduates coming from Baltimore County (4,285 or 38 percent), followed by residents of other Baltimore metropolitan area jurisdictions. Approximately 15 percent of the undergraduates (2,108 students) were new freshmen. This reflects Towson's large numbers of transfer students from Maryland community colleges, particularly, the three comprehensive community college campuses in Baltimore County (Towson University, 1999).

Applications, Admission and Yield. For Fall 1999, Towson received 7,799 applications for first-time freshmen admission. Of these 5,390 (69 percent) were admitted and 2108 (39 percent) enrolled (Towson University, February 13, 2000). For most of the 1990s, Maryland residents constituted approximately 60 percent of all applicants; however, for 1999, the percentage of Maryland applicants increased

substantially to 69 percent reflecting both an increase in applications from state residents and a decline in out-of-state applicants. Approximately 17 percent of the Fall 1999 applicants were African/American, slightly more than the 14 percent African/American applicants in Fall 1995. However, as in previous years, the percent of African/American applicants admitted (38 percent) in Fall 1999 was much lower than the percent of all freshman applicants admitted (69 percent).

Almost all of Towson's new freshmen come directly from high school. In Fall 1999, approximately 70 percent were from Maryland, with nearly one-third of these students coming from Baltimore County. For these students, the mid-range SAT V was 490 to 580; the midrange SAT M also was 490 to 580. The mean high school GPA was 3.2. These academic qualification have remained substantially unchanged over the past five years (Towson University Office of Institutional Research, October 1999; *Ibid.*, 1999a; *Ibid.*, 1999b).

Admissions Policies and Practices. Towson, like UMCP, has the autonomy to develop and implement admissions policies and practices that are consistent with its own mission and goals. It is committed to maintaining its comprehensiveness and serving a broad spectrum of students. Consequently, it adjusted its admission criteria to increase the academic quality of admitted students (Interviews, TU, 10/3/99, 10/12/99). The most significant factors affecting admissions/merit aid policies and practices at Towson are enrollment related. During the late 1990s, USM's enrollment plan included a 20 percent growth in enrollment at Towson. Until Fall 1999, Towson appeared to be planning to reach this goal by increasing undergraduate admissions. However, following the implementation of the Spring 1999 MHEC legislation, which permitted each USM

campus to add new degree programs, campus leaders concluded that they did not have the resources, particularly in terms of space, for undergraduate enrollment increases and are planning to add primarily off-campus graduate programs, including doctoral degrees.

Towson essentially follows USM admission policies but has adopted minimums of a 2.50 GPA and 920 combined SAT I "...without special exception." However, freshmen are expected to have two years of a foreign language and the catalog does not mention the USM option of tech-prep and service learning courses. Like UMCP, Algebra I is required without mention of the Applied Math I and II option in the USM policy. Students with "selected deficiencies" can be admitted if these deficiencies are to be made up the freshman year. Towson uses a highly quantitative approach to selection which is based on a sliding SAT/GPA scale. Generally academic performance, as measured by the GPA, is considered more important than SAT scores. Non-quantitative factors are reviewed only in borderline cases. This grid is adjusted annually to help ensure that enrollment targets are met. Although each college/school has the autonomy to set freshman requirements, only dance and music have additional requirements for freshman admissions. Students with a minimum combined SAT I score of 1180 and a minimum 620 verbal, a GPA of 3.50, or special permission from the Honors College can be admitted to its programs. Approximately four percent of its freshmen have been admitted as exceptions to the USM admission requirements in recent years.

Placement and Remediation. A substantial percentage of Towson's entering freshmen require remediation in one or more of the basic skills areas with the highest percentage requiring remediation in mathematics (Maryland Higher Education Commission, September 1999). In recent years, approximately one-third of the students

have been exempted from placement testing based on SAT or other test scores. Among those students who are tested, approximately half require remediation. Most often, remediation is only required in one area, with the largest numbers needing remediation in mathematics. Towson currently uses the Nelson-Denny test for placement in reading and ACT Asset test for English placement. It offers two developmental reading courses and one developmental writing course. Mathematics placement is based on a test selected and adapted by the Mathematics Department, a modified version of the Mathematics Association of America test, similar to the one used at UMCP. The campus offers three levels of developmental mathematics courses.

High School Graduation Requirements and Assessment Testing

Maryland's current high school graduation requirements were first implemented for students entering the ninth grade in Fall 1993. They included somewhat increased course and credit requirements in some areas, but no substantial increases in academic expectations and standards. Although high schools were included in the Maryland School Performance Reports, their performance was measured largely by indicators such as high school program completion, attendance and dropout rates, and passing rates on the Maryland Functional Tests. These tests, instituted in 1989, assess minimum competencies in basic skill areas (reading, writing, mathematics and citizenship) and have high pass rates even at the ninth grade level (Maryland State Department of Education Research and Development Office, June 2000). In 1999, the testing requirements were modified slightly, and completion of an approved government course in citizenship was adopted as an alternative to passing the functional test in citizenship.

Currently, Maryland's high school graduation requirements include the academic course and credit and functional test requirements listed below. In addition, students must meet attendance requirements and complete either 75 hours of student service or an alternative locally designed service program approved by the State Superintendent of Schools (Maryland State Department of Education, February 25, 2000).

HIGH SCHOOL GRADUATION REQUIREMENTS

Total Credits	21
Core Requirements	
English	4 credits
Mathematics	3 credits including 1 credit in algebra and 1 in geometry
Science	3 credits, including laboratory experience in any or all of the following areas: earth science, life science and physical science
Social Studies	3 credits including 1 credit in U.S. History, 1 credit in World History and 1 credit in local, state and national government
Other Requirements	
Fine Arts	1 credits
Physical Education	½ credit
Health	½ credit
Technology Education	1 credit
Foreign Languages or career	2 credits in Foreign Languages or 2 credits in Advanced Technology or technology option or state approved technology and career program
Electives	3 credits
Functional Tests	Pass Maryland functional tests in mathematics, reading, writing and take an approved government course (or pass citizenship test if such a course is not offered by the local school system)

Work on the High School Improvement Program (HSIP) and performance-based high school assessments to complement the MSPAP tests for primary and middle schools began in 1994. However, because there was considerable discussion about whether or not students should be required to pass these tests to earn a diploma, it was not until 1997 that the State Board officially approved the development of assessments in five subject areas and mandated that these tests become part of the statewide graduation requirements. Initially the tests were to become part of the statewide graduation requirements beginning

with the graduating class of 2004. However, as discussed below, there have been two postponements of this date, and, as of Spring 2000, the graduating class of 2007 would be the first class for which passing the new test would be a graduation requirement (Maryland State Department of Education, March, 1998; *Ibid.*, June 2000; Timar, Krop and Kirst, 1997, p.200).

The High School Assessment tests will build on the current core academic area requirements in English, mathematics, science and social studies and, eventually, may include a series of 12 tests. The tests will assess students' knowledge of Core Learning Goals that have been developed by teams of content experts appointed by the State Superintendent of Schools. As a result of the work of Maryland's K-16 Partnership, numerous higher education faculty have been active members of these teams and worked closely with K-12 educators to help ensure that the goals incorporate the knowledge and skills needed for success in a college or university. The tests will be administered when a student completes a course containing the Core Learning Goals. Students who fail will be allowed to retake the test after receiving the assistance required to increase their chances of passing. As originally approved, in Phase I of the High School Assessment program, students will be required to pass three tests (English I, government, and either algebra or geometry) to graduate from high school. A biology test also may be required at the option of local school systems. The Maryland State Board of Education will determine when additional tests in English II, science and history should be implemented (Maryland State Department of Education, June 2000).

Throughout the development of the High School Assessment Program, some teachers, parents, educators and state leaders, including some members of the State Board

of Education, have been concerned that students would not be adequately prepared for the rigorous coursework and tests required by the new assessment program, potentially resulting in unacceptable numbers of students who would be denied a high school diploma. Therefore, in January 1998, the Maryland State Board of Education passed *Resolution #1998-1* in which it recognized that there are "some students who are not succeeding in one of more of the subject areas covered by the State tests (who) may need further assistance in order to meet State standards" and resolved that "a comprehensive K-12 program of remediation assistance be developed by MSDE and funded by the State and other non-local sources" (Maryland State Department of Education, February, 2000, p.1).

Initially, Phase I of the High School Assessment program was scheduled to be implemented for students entering the ninth grade in 2000, i.e., the graduating class of 2004. However, on December 8, 1998, a one-year delay of the date in which passing the tests would be required for graduation was granted in order to allow more time for extensive field testing and for establishing passing scores based on an analysis of scores for two field test years (1999-2000 and 2000-2001). Based on this delay, the first administration of the Phase I tests as part of the statewide high school graduation requirements would begin with students entering grade nine in September 2001, the graduating class of 2005 (Baltimore County Public Schools, Department of Professional Development, Winter, 1998-1999).

In May 2000, approximately a year and half after the first postponement, the State Board of Education approved a two year delay in making the test results a graduation requirement. However, they adopted the State Superintendent's recommendation that the

other aspects of the testing program be adopted as scheduled for students entering in September 2001, including the use of the test results to assess the performance of schools and school systems. They also directed that the test results should be reported on individual student transcripts (in part because of a belief that students would not take the tests seriously without individual consequences).

This second delay followed extended Board debates about the High School Assessments and about a related Academic Intervention Plan that the Board had adopted in Fall 1999. This plan called for $49 million to fund "mandatory additional help for students who fall behind their peers at all grade levels." In part, the large amount of money requested for this intervention plan reflected MSDE staff estimates that more than 30 percent of students would have difficulty passing the tests without such special assistance. According to Board President Edward Andrews, the intervention plan was essential because "We have to make sure that children have a chance to meet those standards and that children have a chance to pass the test" (Argetsinger, March 7, 2000, p.B1). However, during the 2000 session, the Maryland General Assembly only approved $12 million for the proposed Academic Intervention Plan. Therefore, given that the legislature only provided part of the funding needed to implement the plan and the Board's commitment to providing the support needed to help students succeed on the rigorous tests, it is somewhat difficult at this point to predict when, or even if, the test results will actually be implemented as graduation requirements. To date, after two delays, the use of the tests as graduation requirements has been moved forward three years and numerous issues surrounding the use of the test remain unresolved, and are appearing more complex.

Compatibility and Consistency of High School Graduation Requirements and College Admissions Policies and Procedures

A comparison of current high school graduation requirements and the requirements for admission to the University System of Maryland and its two largest campuses reveal considerable consistency in course requirements. All require the completion of 21 year-long courses, including four in English and three in each of the following major subject areas: Mathematics, Social Studies/History and Science. However, within these subject areas, the college admissions requirements require completion of Algebra II and two years of a laboratory science in comparison to only Algebra I and one year of laboratory science needed to graduate from a Maryland high school. At the system level, there is also agreement with the additional high school requirement that either two years of foreign languages or two years of Advanced Technology or a state approved technology and career program are acceptable. However, both UMCP and Towson specify that foreign languages are required. Additional differences emerge in examining the institutional and high school requirements for the remaining six required courses. USM, UMCP and Towson state these course should be "academic electives," but do not state what types of courses are considered academic. In contrast, the high school graduation requirements include fine arts, physical education, and health and technology education and three electives without defining the nature of these courses.

Maryland's K-16 Partnership

Structure and Functions of the Partnership

The first formal cooperative effort to link higher education and K-16 schools legislation was established in 1976 when the legislature created a Education Coordinating Committee (ECC) to facilitate collaborative activities between the higher education and elementary/secondary sectors in the State. However, this committee was not highly visible and did not include direct institutional representation. In 1995, the Maryland Partnership for Teaching and Learning K-16 was established as a result of an agreement between the USM Chancellor, the Superintendent of Schools, and the Secretary for Higher Education. The Maryland K-16 Partnership is not based in law, but is an active, voluntary alliance that draws its strengths and authority from the individual authority and leadership of the heads of the three participating institutions, MSDE, MHEC and the USM, who take turns serving as its Chair. The Partnership now fulfills the functions of the ECC, although it continues to be a legislatively mandated entity.

The primary purposes of the Maryland's K-16 Partnership for Teaching and Learning are to develop "strategies for strengthening K-16 standards, competencies and assessments, the professional development of educators, and community engagement in the K-16 initiative" (Maryland Partnership for Teaching and Learning K-16, September 1996, p.1). The major premises underlying the creation of the partnership were:

- The education of Maryland's citizens is a shared responsibility of the three entities;

- Meaningful improvement in student achievement at all educational levels requires leadership that promotes and facilitates improvements from kindergarten through college graduation;

- The efforts of Maryland's elementary/secondary schools and higher education institutions will be more effective if common problems are addressed jointly (Maryland Partnership for Teaching and Learning K-16, September 1996, p. 1).

The work of the K-16 Partnership is supported by a 27-member K-16 Leadership Council that includes corporate, civic, and public and private education leaders. The Council meets quarterly. The Council has created a K-16 Workgroup, comprised of nearly 60 members, to provide advice and support its work. This group meets at least six times a year and has created seven standing subcommittees to address major issues related to the Council's goals: 1) remediation; 2) standards, competencies, and assessments; 3) transition mathematics; 4) professional development; 5) the National Commission on Teaching and America's Future; 6) K-16 outreach; and 7) and the superintendents and deans and directors resolution of teacher training issues.

Accomplishments

The Partnership's roles in facilitating support and collaboration among faculty and administrators from both elementary/secondary schools and higher education institutions in the development of the Core Learning Goals for high school graduation was most often cited as one of its most important substantive accomplishments. Through its work on the Core Learning Goals for mathematics, differences between what were appropriate high school Core Learning Goals in mathematics and the knowledge and skills required for college-level credit mathematics courses were clearly recognized and a

Transition Mathematics Committee created to "bridge the gap" for those planning to enter higher education. Its work on redesigning and improving teacher education also was considered a major achievement. Other frequently mentioned accomplishments include its work in the areas of remedial education and in establishing and gaining agreement to a set of statewide standards for a "C" grade in the first college-level English composition course. However, a recent article by USM K-16 leaders (Chancellor Donald Langenberg, former Vice President for Academic Affairs George Marx, and K-16 director Nancy Shapiro) perhaps best summarizes the general consensus about the contributions of Maryland's K-16 partnership to date, in stating:

> Perhaps the single most important aspect of our partnership is that we have stopped pointing fingers at each other and have begun directing all our energies to solving our problems...we have begun to make some policy recommendations to our governing boards, and those recommendations are the foundations of systemic reform. (Langenberg, Marx, and Shapiro, Jan./Feb. 1999, p. 12).

The formal endorsements of MSDE's High School Assessment Program by the USM chancellor and the presidents of the USM campuses are important examples of the current high level of cooperation among Maryland's elementary/secondary and higher education leaders (Leaders of Maryland Higher Education, May 1997).

The Partnership has also played an important role in several initiatives related to the improvement of education for minorities and other disadvantaged students (Interviews with USM staff, 12/13/99, 1/21/99; *The Maryland Partnership for Teaching and Learning K-16, K-16 Leadership Council*, February 2, 1999). It has assumed a major role in addressing issues related to the continuing gaps between the performance of African-American and white students by carefully reviewing and then supporting the recommendations in *Miles to Go: Maryland,* a report of the Southern Regional Education

Foundation in a memo to the Joint Chairman of four Maryland General Assembly committees (Maryland Partnership for Teaching and Learning K-16, November 30, 1999). As a result, MSDE, MHEC and USM have become involved in a number of related K-16 activities. In addition, the Partnership has facilitated the joint development of successful grant applications for federally funded Title II and GEAR UP grants and has been involved in developing a state pre-K-12 academic intervention plan for students not succeeding in reading and mathematics.

At the time of this study, the K-16 Partnership was devoting increasing attention to the area of teacher education, an issue that is becoming increasingly important as Maryland faces a critical teacher shortage. It also was initiating local/regional K-16 programs, with the first regional program established in Western Maryland in Fall 1999 and others being developed in Baltimore City and Howard County. To facilitate this initiative, the USM Director of K-16 Initiatives is working to create guidelines for other local/regional K-16 partnerships throughout the state. In addition, in its February 1999 report to the Senate Budget and Taxation Committee, the Partnership identified the following future activities as critical for achieving its goals:

- Set clear and consistent expectations for student achievement - high school graduation through college admission and success;
- Provide assistance through teacher training and continued professional development to help teachers and educators in getting their students to meet the standards;
- Fully implement professional development schools for training of all pre-service teachers;
- Eliminate barriers and redundancies within and across schools and colleges to enable students to make successful transitions and accelerate learning;

- Provide incentives for collaboration among local school districts, community organizations and higher education institutions–especially in the areas of high concentration of low performing schools–to raise student achievement at all levels–K-16;

- Advocate for the involvement of the arts and science faculty in the rigorous academic preparation of teacher candidates;

- Align college admission with high school assessment (Maryland Partnership for Teaching and Learning K-16 Leadership Council, February 2, 1999).

University System of Maryland and Campus K-16 Structures

The Chancellor of the USM is, perhaps, the most enthusiastic and strongest advocate for K-16 collaboration in Maryland. In addition to his leadership in Maryland, he has used his role as President of the National Association of System Heads to promote K-16 collaboration across the nation. His strong advocacy of the K-16 concept has promoted and facilitated the involvement of all USM institutions in statewide and campus-based K-16 activities. He has employed a full-time K-16 Project Director to develop and coordinate USM's K-16 efforts, with the campuses and statewide. The USM 1998 strategic plan contains a strong commitment to the K-16 concept and outlines strategies to reach its objectives. The USM also has obtain substantial external funding to support its K-16 initiatives.

Individual schools and colleges within the University of Maryland at College Park have a long history of developing collaborative programs with K-12 schools and the community. Some of these partnerships stem from the 1960s and 1970s, or earlier. Many of these efforts were, and continue to be, the result of individual faculty and administrator's initiatives. Campus-wide efforts to work with schools were initiated in the late 1970s with the establishment of the Office of School/University Programs. An

inventory of the various campus efforts, compiled in 1999, lists approximately 150 such programs. More recently, the campus has become a participant in statewide K-16 initiatives and instituted its own K-16 Council. The major focus of these efforts are the alignment of high school and college curricula and standards; teacher education reform, and the application of research knowledge to classroom practices.

Towson University, also has a long history of collaborative activities with K-12 education. Many of its colleges and departments have developed a number of special programs that involve direct collaboration and cooperation with elementary/secondary school's students and teachers. For example, English department faculty members have been involved in developing core learning goals for high school English and in establishing statewide standards for the C grade in the first college-level writing course. Mathematics and computer science faculty have participated in statewide discussions on core learning goals for mathematics and on the articulation of high school level computer science course competencies with those in entry level college courses. Towson also is very involved in K-16 activities related to teacher education.

Participant and Campus Perspectives on the K-16 Partnership

Those interviewed for this study expressed a variety of perspectives, both positive and negative, about the operation and accomplishments of Maryland's K-16 Partnership. Several said that its status as a voluntary alliance with no reporting authority except through the participating parties is both a strength and a weakness. They noted that the voluntary nature of the alliance limits bureaucracy and unnecessary formality, and allows participants to work together as peers. However, some also noted that the Partnership has no direct authority to ensure that its initiatives and programs are implemented and

suggested that the strength and directions of the Partnership were heavily dependent on the specific individuals now serving as CEOs of the collaborating agencies. Although they generally believed that the Partnership had sufficient momentum to continue even if one or more of the current CEOs left, they speculated about the effect such changes would have on its future directions and influence. Another concern stemming from the voluntary nature of the Partnerships was its lack of specific funding, either for its own activities or for the institutional programs required to carry out its recommendations. In an effort to overcome this limitation, in Spring 2000, the Council submitted a request to the legislature, requesting that funds for a number of K-16 initiatives be included in the budgets of the institutions with responsibility for carrying them out (Langenberg, Grasmick, and Florestano, November 18, 1999). However, instead of providing this funding for the current fiscal year, the legislature requested a study be undertaken to guide their decision making.

A somewhat different type of concern, that emerged primarily at the campus level, was that the discussions and activities of the Leadership Council too often did not take into account the realities of campus life or involve the campus faculty administrators who often have major roles in implementing new policies and initiatives. Others suggested that its underlying agenda was somewhat unclear or at least, in part politically based. Many could not specify any accomplishments of the Council or its working groups. In addition, some interviewees noted that the purposes and the work of the Leadership Council and the Workgroups were not well known on many campuses in the state while others observed that the state-level initiatives have spread their efforts too broadly and, consequently, they have not been particularly helpful for campuses.

Nevertheless, most believed the Partnership elevated the attention of both sectors to the issues, and that increased communication between the sectors was its major accomplishment (Interviews, UMCP, 11/23/99, TU, 10/3/99, 10/12/99).

Analysis and Conclusions

This study examined higher education admissions, placement and remedial education policies in Maryland, including statewide guidelines and regulations and the policies and practices of USM and its two largest institutions, UMCP and Towson. It also examined statewide K-12 policies and initiatives affecting high school curricula and graduation requirements, including the state's efforts to implement high stakes high school assessments. Finally, the study considered the structure and accomplishments of Maryland's formal K-16 Partnership for Teaching and Learning. As indicated below, the findings suggest a number of conclusions about the affect of current policies and practices on the transition of students from high school to college in Maryland. The analysis also suggests a number of issues and challenges that Maryland, and perhaps other states, may need to address in trying to improve opportunities for students to enter and succeed in higher education.

Access to Public Higher Education

Maryland high school students generally have reasonable access to its four-year public institutions. Geographically, as a relatively small state, with most of its population concentrated in the suburban counties surrounding Washington, D.C. and Baltimore City, four-year campuses are relatively close to the majority of prospective undergraduates. To serve students in areas which are most distant from existing four-

year colleges and universities, and to address anticipated enrollment growth, the state is creating partnerships among its institutions and promoting distance education programs.

Access for students with differing educational aspirations and abilities is facilitated by the diverse missions of Maryland's four-year public colleges and admissions, and their variety of admissions standards and criteria. The relatively high acceptance rates of most institutions (54 percent for the flagship institution, 69 percent for Towson and similar rates for the other four-year comprehensive campuses) support this conclusion. In addition, USM's very broad admissions requirements, as well as its relatively flexible admissions practices at UMCP and Towson, do not automatically exclude minority or disadvantaged students who are judged to have the potential for success but may not fulfill stringent requirements in terms of GPAs or test scores. Finally, throughout the state, students have access to community colleges with extensive transfer programs. The state's strong and well-known articulation agreements enable students who initially enroll at a two-year school to transfer to a four-year public institution with minimum difficulty and/or loss of credits.

Placement and Remediation Policies and Practices

Placement and remediation continue to be a concern in Maryland. Available data, despite their limitations (from MHEC's SOAR system and institutional studies) strongly suggest that considerable numbers of the students who do enroll in the state's four-year institutions are not fully prepared for college-level work. The need for remediation is most extensive in mathematics. Even UMCP, which has eliminated placement testing in English and reading because of the strong credentials of its admitted students, has a substantial number of new students who are not prepared for college-level mathematics

or, even if they attain minimum levels, are not prepared for the mathematics coursework required by their intended programs of study.

The State has tried to address concerns about the extent and costs of remediation in its higher education institutions, particularly its four-year public colleges and universities. At present a newly appointed state task force is examining placement and remediation issues and the state's K-16 Partnership has devoted considerable attention to this problem. USM holds that student placement and developmental/remedial policies are campus prerogatives, and there are substantial differences among institutional assessment, placement and remediation policies and practices. While this flexibility appears appropriate for institutions with highly diverse missions, it poses complex challenges in clearly defining "remediation" and "college-level work" across the state and on reaching agreement on assessment and placement policies and procedures. However, most state and some campus officials do believe that students would benefit by greater consistency across institutions and continue to seek ways to address the current situation.

Both UMCP and Towson provide many support services to students who need extra help to succeed in college-level work. They also actively work with the schools to help increase opportunities for minorities and other less advantaged populations to enter and achieve success in higher education. Through its *Schools for Success* reform initiative, MSDE also places a heavy emphasis on helping students maintain academic progress, preparing them to pass the planned high school graduation assessment tests, and thereby graduating students who are better prepared for the academic requirements of higher education.

Aligning Higher Education Admissions Requirements with High School Assessment

Based on Maryland and USM policies, its public institutions have a great deal of discretion in setting their admissions requirements. Therefore, mandating that these institutions adopt specific course requirements or use specific tests would be contrary to long-standing traditions. At present, since the State's High School Assessment is still under development and, at the earliest, will not be implemented until 2005, there is no clear understanding about how the tests could be used in campus admissions policies. However, given that both UMCP and Towson enroll substantial numbers of new freshmen from out-of-state, these assessments could never be more than a component of the process in Maryland institutions. Conversely, large numbers of Maryland high school students go to out-of-state institutions, including a diverse array of private colleges and universities, and generally must prepare for the national standardized tests and course requirements of these institutions. This raises additional questions about whether replacing current testing requirements with the Maryland high school assessments would be beneficial to students. For example, as widely discussed in the media, high stakes high school assessment testing can result in schools "teaching to the test." Consequently, students may not be exposed to the full range of knowledge and skills needed to gain admission or achieve success in out-of-state or private colleges and universities.

K-16 Communication and Collaboration

The findings of this study reveal that Maryland's unique K-16 Partnership arrangement has both major strengths and weaknesses. Senior officials, and many of those directly involved in its work, noted the Partnership's contribution to facilitating collaboration among elementary/secondary and higher education faculty and administrators in developing core high school graduation learning goals, redesigning and improving teacher education, examining remedial education issues and establishing statewide standards for a "C" grade in the first college-level English composition course. However, there was widespread agreement that, to date, improved communication and understanding between those in the elementary/secondary and the higher education sectors has been the Partnership's most valuable contribution.

Most of those interviewed at the two institutions were aware of the Partnership's existence but many were unclear about its agenda and/or accomplishments. Some noted that it appeared to be divorced from campus realities, did not involve the mid-level administrators and faculty who generally implement meaningful changes on campus, and had not been particularly helpful to the institutions. Nevertheless, even among those who expressed these concerns, most believed that the Partnership increased awareness and communications about the issues in both sectors and that this was very important.

The Partnership's status as a voluntary alliance with no reporting authority except through the participating parties was seen as both a strength and a weakness. The voluntary nature of the alliance limits bureaucracy and unnecessary formality, but it provides no direct authority or targeted funding to ensure that its initiatives and programs are implemented. In addition, as a voluntary effort, it is heavily dependent on the specific

individuals serving as CEOs of the collaborating agencies. Although those interviewed for this study generally believed that the Partnership had sufficient momentum to continue even if one or more of the current CEOs left, they speculated about the effect such changes would have on its future directions and influence.

The K-16 Partnership's stability will be tested in the near future. The Secretary of Higher Education retired and was replaced in July. The USM Board of Regents announced on October 27, 2000 that the Chancellor of the System, the most active leader in forming the K-16 Partnership, would be retiring in approximately 18 months. Maryland will have to decide the extent to which it can best achieve its K-16 objectives through bureaucratic coordination or through less formal cooperative arrangements. The literature on state-level coordination of higher education suggests that strong leadership coupled with institutional flexibility may be more effective in promoting needed change than formal governmental bureaucratic coordination. The effectiveness of various state and national structures for governing, regulating, and coordinating higher education is constantly being debated in the U.S. and throughout the world.

Part II The Secondary School Level

Introduction

While Phase I of our research investigated admissions policies, practices and collaborative efforts of higher education institutions, Phase II of our research examines how admissions policies and the state's collaborative K-16 efforts play out at the level of the secondary school. In studying the link between primary/secondary schools and higher education, we look at students' and parents' knowledge of college admissions, systemic linkages, and at the provision of school services that can facilitate the transition.

A stronger link between K-12 and higher education could result in more realistic learning incentives for students and provide guideposts for instructors in both K-12 and higher education institutions. Alignment of standards for graduation and admission could increase the flow of information between the two system parts. Students' and parents' accurate and realistic knowledge about higher education possibilities, options, and requirements could facilitate adequate course taking and other college preparatory activities in high school and help students take advantage of existing educational opportunities in higher education. We assume in particular that student groups who are traditionally not college-bound would benefit from this knowledge. From the point of view of the system, such knowledge can foster efficiencies as students chart a realistic course of preparation and as teachers know what colleges expect and what to teach to avert remediation at the college level. But these efficiencies cannot materialize when the two system parts do not know each other's standards, when coordination between schools

and universities is weak, and when knowledge on the part of students, parents, and teachers is fuzzy.

In Phase II therefore we first wanted to ascertain what students and parents know about college and college admission. Do they have a realistic idea about the cost of various college options? Do they know about various institutions' course taking requirements, tests and grades? And are they informed about the role of social criteria for admission? We needed to find out if such knowledge is differentiated according to student sub-groups based on income, race, track status in school, and college aspirations. Secondly, we asked how teachers, counselors, and administrators construct the link between high school and college and what kind of formal services and informal knowledge they provide to students for admission preparation. Lastly we inquired about direct links between institutions of higher learning and local high schools and the effects of these links on students.

Data from Phase I suggest the link between K-12 and higher education to be fairly weak in the state of Maryland for the following reasons:

- With the exception of very basic college-preparatory requirements spelled out by the University of Maryland System, requirements for admissions are set autonomously by institutions of higher learning; as a result, an array of placement tests that are not consistent across institutions are in use.
- To date, K-16 efforts have been voluntary and take place at a very high level of state leadership; K-16 initiatives do not seem to have filtered down to the lower level of districts and schools yet.
- The fate of high-stakes accountability testing for high school graduation seems uncertain at this point, perhaps with the effect of diminishing the level of concern for school service providers and clients.
- Colleges admission officers that do have direct links to their most important feeder high schools tend to "sell" their college to increase applicant yields, rather than inform potential students of placement requirements.

- Many Maryland students attend college out of state and many students enrolled at Maryland institutions of higher learning are from out-of-state, making intra-state alignment a potentially less forceful factor in higher education administrators' decision making.

In the next sections of this paper we will show how this peculiar connection between secondary and post-secondary education in the state of Maryland is reflected in the behavior of students and educators. First, a brief review of the literature will introduce the main concepts and variables that we investigated in Phase II of the study. Second, we will report preliminary findings from the student questionnaire with a focus on students' knowledge of the admissions process. Analysis on parents and student subgroups are not presented here. Third, qualitative data from teacher, counselor, and principal interviews will help us understand what schools do about the preparation of their students for college. We will conclude with a summary of findings. These findings should be read as preliminary and incomplete. Data analysis is still on-going at this point.

In researching the Maryland case, we followed the design compiled for the national Bridge study at the Stanford Institute on Higher Education Research under the directorship of Michael Kirst and Andrea Venezia. We want to explicitly and gratefully acknowledge their authorship in designing the questionnaires, interview protocols, and sampling procedures that underlie our findings.

Review of Literature

The disconnection between K-12 education and higher education is not a new phenomenon. In fact, the separation of these two key educational entities is said to have dated back to WWII and the emergence of the research university (Timpane and White,

1998). According to Timpane and White (1998), the theoretical world of research drew many universities away from their focus on the pragmatic world of public schools. The authors contend that the War on Poverty, integration, and expanding college enrollments of the 1960's may have exacerbated the gap between the two education systems. Rapid growth and equity concerns shifted the focus away from developing common goals and aims across secondary and higher education. Another reason given for the disconnect between the two systems is that, unlike some European countries which have national standards and are regulated by a central government, in the United States both higher education and K-12 are only loosely controlled by the government (Judge, 1998). The Consortium for Policy and Research in Education (CPRE) reports that K-12 and higher education are "two systems that often act independently and at cross purposes from one another" (2000, p. 1). The relationship is characterized as uncoordinated, if not dysfunctional.

Our research looks at this relationship between K-12 and higher education in both its systemic and personal aspects. Three bodies of research—K-16, college choice, and aspiration—provide a conceptual foundation for our inquiry. The literature on K-16 policy focuses on the lack of policy coherence between the K-12 system and higher education. College choice literature provides background on how students make the transition between the K-12 system and higher education. Finally, an exploration of the literature on aspirations looks at students' motivations for choosing to pursue higher education.

K-16 Policy

While the issue of K-16 alignment has gained some research attention, most of the existing literature focuses on issues related to teacher preparation. The linkages between high schools and colleges with respect to admissions policies, procedures, and transitions, have not received as much attention. The interest in the connection between schools and colleges is sparked by three primary policy objectives: 1) Alignment between K-12 and higher education systems—agreement on academic curriculum content and the skills that students should develop from them; 2) Accountability—setting institutional standards that meet the public's demands for higher performance; 3) Intellectual Growth—shared academic culture that provides academic and pedagogical stimulation to educators in similar disciplines at both educational levels (Stewart and Johanek, 1998).

The Bridge Project is one of a few research projects that has accumulated data on the effects of the disconnection between the K-12 and higher education systems and policy related issues. Kirst (1998) contends that the current disconnection may be more of a problem today than in the past due to systemic education reform efforts that are taking place at the K-12 level. Because of the high stakes nature of recent K-12 assessments a higher level of alignment between the two system parts are needed and desirable. He argues that to date there is no real alignment between the goals of K-12 education and higher education, and there is no real agreement as to what students should know after they graduate from high school (1998). This disconnect is a problem because it inhibits students' abilities to make successful transitions from high school to college and it creates system inefficiencies. In Hodgekinson's (1985) view, students should be

able to transition through a seamless educational system that goes from kindergarten to college graduation.

According to Kirst, the disconnection between K-12 and Higher Education is related to four problems: 1) lack of authentic measures for student assessment regarding college preparation; 1) misalignment between secondary student curriculum offerings and preparation and college admissions placement processes; 3) placement of many students in remedial classes; and 4) low retention and completion rates of many public universities. Oblivious to recent high stakes systemic reform in K-12, the admissions policies of many colleges and universities have not changed to meet the new standards and goals of education reform, resulting in a presumed rupture between college placement exams and K-12 reform efforts (Kirst 1998).

Kirst calls for more policy coherence. But forging new policy coherence requires participation of colleges and K-12 leadership and may require state level intervention (Haycock,1998). According to a report logged by Venezia (2000), the state of California is taking steps to foster an alignment between K-12 and higher education, but alignment is a major policy challenge.

College Choice

Interest in research on how students make decisions about college attendance has increased over the past four decades (Hossler, Braxton and Coopersmith , 1989). Three models of college choice have been widely used. The first model of college choice is econometric. Econometric models grasp the choice process in monetary terms as rates of return on educational investment. (Hossler et al 1989, McDonough 1997). The second

model of choice is the sociological model. This model focuses on the influence of schools, parents, peers, and teachers (McDonough, 1997). The third college choice model is a combined model, wherein researchers combined the strongest variables from the other two models to facilitate more accurate predictions (Hossler et al 1989). A comprehensive analysis of these models was done by Hossler, Braxton and Coopersmith (1989). They show that all choice processes primarily happen in three general phases, though some of the models have additional stages. The first stage is the alternative stage, in which students decide on what they will do after graduation (Hossler et al, 1989). The second stage, implementation, is the phase in which students begin to research their options and investigate how these options may or may not fit into the future goals and plans they have made for themselves. The final stage is the objective stage, the point at which a student makes a decision on what school they will attend.

In Litten's (1982) combined model of college choice, the earliest stage contains aspects of school context, student demographics, student academic and personal attributes and abilities, and environmental and economic factors. These factors interact to form an educational aspiration for college attendance. The second phase of Litten's model, the information gathering phase, focuses on the influence of parents and significant others (Hossler et al, 1989). This stage of the model also incorporates marketing, which includes policies, recruitment, and informational brochures as important aspects.

Hossler and Gallagher (1987) introduced a model of college choice that focuses on three phases: 1) predisposition, 2) search, and 3) choice. In the predisposition phase students determine whether they will pursue postsecondary education. The variables associated with predisposition for college attendance include family socio-economic

status (SES), academic ability, student aspirations, quality of high school and academic curriculum track, and encouragement from high school counselors and teachers. The second phase, the search phase, focuses on students' ability to gain more information about institutions they may want to attend. Here provisions of knowledge by schools and other organizations may be key. The third phase is choice wherein students begin to narrow their top school choices in order to decide on which institution they will attend.

In an interpretation of sixteen studies that looked at the earliest stages of college choice, Paulsen determined that parental encouragement is one of the most powerful intervening variables between socio-economic status and academic ability of the student and his or her aspiration (Sewell and Shah, 1978). Additionally, the status of the neighborhood a student lives in and the status of his or her high school are related to the formulation of educational aspirations.

Aspirations

Student aspirations for college attendance play an integral role in their decision to pursue higher education. Aspirations are positively related to actual college attendance. But according to Hossler et al, aspirations have not been found to be the cause of college attendance, only a combination of other variables such as "SES, student ability/achievement, and parental expectations" (1989, p. 259). Aspirations are defined as "an individual's view of his or her own chances for getting ahead and are an internalization of objective probabilities" (Macleod 1987, p. 13). This broad definition includes occupational aspirations as well as educational aspirations. Educational aspirations are said to be "an idealistic value orientation toward education" (Morgan 1996, p. 308). The idealism that aspirations bring is an important aspect of the choices

students make with regard to their future and the development of college plans. McDonough (1998), citing Alexander and Cook, states that the intention--or aspiration--to attend college can increase the probability of actual attendance by more than 20% if the aspiration/intention is developed by the 10th grade.

Early studies of status attainment theory revealed a link between student aspirations and educational attainment (Campbell, 1983). Status attainment theory says that "educational attainment varies with the status specific values and encouragement that significant others transmit to students in the process of socialization" (Morgan, 1996, p. 308). Thus, student aspirations are closely tied to variables such as SES and that parental input, guidance (Sewell and Shah, 1978).

Students' high school experiences have been found to have an influence on their aspirations for college as well (Boyle, 1966; Alwin and Otto, 1977). Boyle points out that the kind of school a student attends (i.e. high, medium, or low SES) has an additional affect on student aspirations. Aspirations for college attendance are mediated by the "academic standards and practices" set by the high school that has a college focus (Boyle, 1966, p.6). Boyle found that, after controlling for family background, attending a high-status school had a much greater effect on aspirations than did attending a medium-status or low-status school.

Some scholars contend that different models are needed to explain aspirations of minority students. Kao and Tienda (1998) introduce the notion of blocked opportunities. As a more recent strand of student aspiration theory, blocked opportunities theory suggests that ethnic and racial minorities have experiences that are different from the majority population resulting in different aspirations. According to Kao and Tienda

(1998), there are essentially two distinctly different types of reactions to the block of minority status. First, there is overcompensation. In this reaction, minorities students go out of their way to make up for the adverse affects and perceptions that come from belonging to a specific minority group, thus overcoming the block. The second strand of aspiration blockage concentrates on the achievement problems that some minority students face based on the apprehension they harbor toward academic success. This apprehension is formed by students' perceptions that they will not be able to attain higher-level economic status regardless of the level of academic prosperity they experience. This is said to lead to low student achievement, thus weakening college aspirations.

As suggested by McLeods book, Ain't no Makin it, blockage can be defined in economics terms as well (1996). He describes how short-run cost-benefit analysis is more in line with the thinking of some minority students. African American students are sometimes concerned about the money outlay for attending college and might not see college as being a good choice because of the uncertainty of the return on the investment (Freeman, 1997).

College Search

The second stage in the college choice process, search, is an important stage from the perspective of K-16 alignment. Unfortunately, this stage has received less attention than other stages of the college choice process (Hossler et al, 1989; Hossler, Schmit, Vesper, 1999; Paulsen, 1990). During the search phase students are most concerned with gaining information about colleges (Hossler et al 1989). Students seek out information from sources they believe to be most reliable. Lewis and Morris (1975) mention

guidance counselors, admissions officers, students in college, campus visits, and catalogs as information sources. They point out that African American students rely on admissions representatives and college visits for information, while white students tend to get information from their parents or school counselors. Another important finding by Gilmore (1978) is that the PSAT may be a trigger for students to begin to formulate a list of schools they would like to consider. Students may consider taking the PSAT or SAT "an important rite of passage" (Hossler et al 1999, p. 51). Taking the SAT is also a trigger for students to receive mailings from colleges. But some studies have shown that students may not rely on written material in the college choice process (Johnson and Chapman, 1979). In many instances high school students may not have developed the reading skills necessary to interpret the information provided in the written materials. This lack of comprehension could underscore the importance of personal contact with teachers and counselors.

Conclusion

This review of literature provides an overview of the pertinent research on K-16 policy, college choice, and aspirations, the three areas from which we draw the conceptual base for the research. The literature on K-16 policy is slim, but it conveys a sense of the challenges inherent in forging policy coherence between K-12 and higher education. College choice literature illuminates the processes that students go through to make their way to college and the various factors that play a role in their decision making along the way. The literature on student aspirations shows how students' own

perceptions of their opportunities and abilities are integral to their future intentions, focus, and the execution of their future plans.

Survey Data

Sample and Methods

We selected four high schools as sites for the Maryland Case Study. They were chosen for their status as primary feeder schools for Towson University and the University of Maryland, College Park, two of the most popular public universities in the state for Maryland high school graduates. The schools were chosen in two jurisdictions representative of the state's racial and geographic diversity. Two of the selected schools are top feeder schools, one was chosen because we could not gain entry to our first choice. One was chosen as a school with a predominantly African American student body. Two of the schools are predominantly white, and the fourth school is more evenly proportioned in terms of ethnic diversity.

The quantitative data reported in this paper are the result of a 28-item survey administered to 9th and 11th graders in their English classes. Four classes were chosen from each school, an honors and non-honors class from the 9th and 11th grades, resulting in a survey of 16 English classes. The students completed the Maryland Bridge Student Survey in their English classes during the Spring, 2000 semester. The student survey response rates for the four schools were between 56% and 72%. The parents of the students were surveyed prior to the student survey with a similar survey of 17 items to determine socioeconomic background and parental perceptions of their children's

aspiration and the admissions process. The parent data will be reported in the final Maryland Case Study Report.

Phase II of the Bridge Project has both quantitative and qualitative components. The qualitative component of the study includes interviews with the principals and guidance counselors of the four schools, as well as four teachers at each school who teach 9th and 11th grade honors or non-honors English. These interviews attempt to underscore the services and connections with college admissions currently in place for Maryland high school students and their families, as well as the staff members' perceptions of these linkages. Additionally, focus groups were conducted with honors and non-honors 11th grade students who had completed the student survey. This paper includes preliminary findings from the quantitative survey and qualitative teacher and counselor interviews. The analysis is mainly descriptive.

Findings

The quantitative student survey includes questions on student background, academic preparation, post-secondary aspirations, knowledge of high school requirements for college, knowledge of the admissions process (specifically at Towson University and UM College Park), and students' exposure to higher education institutions and schools' targeted admission preparation services.

Demographics

Table 1 displays student demographics and other self reported student characteristics from the survey.

Table 1 – Student Demographics and other Characteristics

Student Demographics and other Characteristics	N=232			
Race/ethnicity	African American	White	Latino	Other
	32%	50%	5%	13%
Gender	Female		Male	
	60%		40%	
Grade level	9th Grade		11th Grade	
	55%		44%	
English class	Non-honors		Honors	
	43%		57%	
High school grade point average	A	B	C	D or below
	33%	46%	17%	4%

The percentage of females is larger in our sample than that of males for two reasons. The larger number of female students in the sample (60%) may reflect a higher proportion of women (64%) taking honors courses in the state. The response rates for the honors classes were higher than for the non-honors classes. The low percentage of Latino students in the sample (5%) reflects their proportion in the populations of the two Maryland jurisdictions (9% and 2%) in which the high school sites are located.

High School Performance and Aspirations

The overall self-reported high school grade point averages for the students were in the B range. Compared with this performance level, student aspirations tended to be very high, as Table 2 demonstrates.

Table 2 – Schools Considered by Students after High School

Post-secondary Options	Student Responses*
A 4-year college or university outside of Maryland	65%
University of Maryland, College Park	47%
A 4-year private college or university within Maryland	28%
Historically Black College or University	24%
Towson University	10%
A 2-year community or junior college	10%
A technical/trade school (e.g., Lincoln Tech)	8%
A U.S. military academy	8%
Other type of school	8%
I haven't considered any schools	7%

*multiple responses accepted

Interestingly, the majority of students aspired to a 4-year school outside of Maryland. UMCP also received a high percentage of student interest. Students showed very low desire of less selective institutions, such as Towson. In reality, approximately three-fourths of Maryland high school graduates attend college in Maryland. Community college enrollment constitutes 40%, and public four-year campuses comprise 43% of all Maryland undergraduate enrollments (MHEC, 2000).

Student Knowledge of Tuition and Fees

The presumed high cost of a college education has often been cited as a deterrent for students. To better understand what students know about the practicalities of college admissions (in this case, the financial commitment required) we asked them to estimate how much they think it costs to attend college. To ascertain whether they make

distinctions between the financial requirements of institutions they were asked to estimate yearly tuition at a community college, University of Maryland, College Park and Towson University.

In 1999, the average tuition for Maryland community colleges was $74 per credit hour. Therefore, an average full-time Maryland community college student (24 billable hours per year) pays $2,171 per year for tuition and fees (MHEC, 2000).

Among Maryland public four-year undergraduate institutions in 1999, students paid an average of $4,310 per year for tuition and fees. Tuition and fees for University of Maryland, College Park were $4,939 and for Towson University were $4,520 for Maryland residents.

Table 3 - Student Estimates of Yearly Tuition Costs

	Two Year College		Four Year Institutions		
Estimate Comparison with Actual Costs	Student Estimates of Yearly Tuition Costs	Community College	Student Estimates of Yearly Tuition Costs	UM College Park	Towson University
Below Target	Less than $2,000	23%	Less than $4,000	10%	10%
On Target	$2,001 - $3,000*	9%*	$4,001 - $5,000*	7%*	6%*
Above Target	$3,001 - $7,000	20%	$5,001 - $9,000	12%	16%
Far Above Actual Costs	Greater than $7,000	48%	Greater than $9,000	72%	68%

*On target with actual yearly tuition costs.

It is evident from Table 3 that 9th and 11th graders were not aware of actual tuition costs. Although less off-target for estimates of community college costs, the overwhelming majority grossly overestimated the expenses of both 2-year and 4-year tuition.

Student Knowledge of High School Course Requirements

We wanted to find out whether students who aspire to college attendance are aware of the minimum high school course requirements of admission. Students were asked to estimate the number of years in each of five subjects that UM College Park and Towson University required for admission.

UMCP's and Towson's minimum requirements for admission and the students' estimates of the requirements are presented in Table 4 below.

Table 4 - Student Estimates of High School Requirements for College Admission

UMCP/Towson Requirements	Students Estimates Below Target		Student Estimates On Target		Student Estimates Above Target	
	UMCP	Towson	UMCP	Towson	UMCP	Towson
Four years of English	21%	20%	75%	74%	2%	3%
Three years of mathematics*	9%	6%	35%	39%	53%	50%
Three years of *history* or social science*	19%	21%	55%	50%	22%	25%
Two years of laboratory science	9%	10%	22%	25%	65%	64%
Two years of a foreign language	12%	14%	60%	60%	24%	33%

*including Algebra II and plane geometry (Towson include Algebra I as well)
*Towson does *not* include history

Students tended to overestimate mathematics and laboratory science requirements at both schools, which may affect their aspirations and their perceptions of college choice options. As Table 4 illustrates, student on-target estimates of UMCP and Towson requirements were quite similar but the actual high school requirements at the schools differ. Towson actually admits students who have not completed the posted high school requirements if students complete them within the first college semester. Students were

not aware of degrees of selectivity between the two institutions. Thus knowledge of high school course requirements seems unclear among responding students.

Student Knowledge of Selection Criteria

Previous reports have indicated that high school students are often unaware of the specific criteria used at each college or university in their selection process (NCPI, 1997). We wanted to know to what degree Maryland students were aware of this information. As mentioned earlier in this paper, in the University System of Maryland individual universities have autonomy in setting selection criteria within certain guidelines. Often universities use a plethora of criteria to make decisions about admissions. It is in the strategic interest of students to concentrate on these admissions specifics.

For both Towson and UMCP admission, SAT scores and high school grade point averages are the most important criteria used for selection. UMCP, however, focuses more on qualitative criteria similar to other more selective schools. In addition to SAT scores and grades, the following list of additional criteria is considered at both institutions (University Catalogs, 1999) (please note differences presented parenthetically):

- Class rank (although Towson does not use it, UMCP uses it, when available)
- Required coursework (both require the minimum USM requirements, but Towson will allow deficiencies to be remedied by the end of the first semester)
- Quality of coursework (UMCP will consider AP, honors, etc., Towson does not consider, if the minimum requirements are met)
- Personal statements (UMCP does not always use as key factor, Towson uses only for borderline cases)
- Recommendation letters (used similarly to personal statements at the two institutions)
- Maryland residency (out-of-state limited by state to 30%--UMCP states that in-state students have somewhat higher SAT scores and grades than out-of-state enrollees)
- Geographic diversity (state policy states that enrollees should be drawn from all regions of the state)

- Status of high school attended (key factor at UMCP, only for borderline cases at Towson)
- Extracurricular, work and community activities (positive influence, if noteworthy, at UMCP, only used for borderline cases at Towson)
- Applicant background information (Both UMCP and Towson list Special Talent/Skills here. UMCP lists three more specific criteria than Towson, including race/ethnicity, breadth of experience, and demonstrated interest in the university)

On the student survey, students were given a list of possible selection criteria. They were asked to rate their degree of importance for admission to UMCP and Towson. Student responses to these items are presented in Table 5 and 6 below. The criteria in bold are those variables actually used by the university for selecting new students.

Students estimated correctly that high school grades and SAT scores are the most salient criteria for both institutions. These two items received the highest percentages as the "Single Most Important Factor." But lack of student knowledge of the selection criteria is evidenced by several patterns (see Tables 5 and 6):

- Generally, students perceived the criteria as more important than they are (for instance, the majority of students rated academic reputation of high school, extra-curricular involvement and numbers of college preparatory courses as "Most Important" or "Very Important" at Towson when they are actually only considered for borderline cases);

- A large percentage of students thought that the social criteria are not considered by universities (such as racial/ethnic background, how much money your family has, first generation in college, and first generation to speak English);

- Students tended to overestimate the importance of the essay or personal statement for admission to both schools;

- Students showed no awareness of the importance UMCP places on the status of their high school for selection or the more liberal selection process at Towson in general;

- Students were not aware of the differences between the more selective and the less selective campuses. Estimates were fairly similar for both schools.

In summary, although aware of the importance of the quantitative criteria (such as SAT and grades), students do not have detailed and firm knowledge in this area.

Table 5 - Student Responses to Importance of Selection Criteria at UMCP

Selection Criteria Listed on Survey	Single Most Important Factor	Very Important	Moderately Important	Minor Factor	Not Considered
High school grades	**29%**	**65%**	**5%**	**1%**	**0%**
Senior year grades	22%	40%	27%	10%	1%
Application essay*	**22%**	**50%**	**25%**	**3%**	**1%**
Geographic residence**	**3%**	**9%**	**26%**	**43%**	**20%**
Exceptional talent	**13%**	**40%**	**34%**	**12%**	**2%**
SAT-I or ACT score	**35%**	**52%**	**8%**	**3%**	**2%**
SAT-II score	28%	38%	20%	9%	4%
AP test score	**17%**	**43%**	**31%**	**6%**	**8%**
First generation college student	**5%**	**9%**	**17%**	**32%**	**37%**
First generation in family to speak English	**2%**	**7%**	**16%**	**26%**	**49%**
How much money your family has	**7%**	**18%**	**29%**	**22%**	**24%**
Parents or siblings went to UMCP	**3%**	**11%**	**25%**	**28%**	**34%**
Academic reputation of high school	**11%**	**29%**	**32%**	**18%**	**11%**
Involvement in volunteer work	**7%**	**30%**	**42%**	**15%**	**6%**
Your rank in graduating class ***	**12%**	**36%**	**35%**	**13%**	**4%**
Involvement in extra-curricular activities	**12%**	**44%**	**31%**	**10%**	**4%**
Number of college prep courses completed	**8%**	**30%**	**44%**	**13%**	**5%**
Ability to pay tuition	16%	34%	30%	16%	4%
Letters of recommendation	**13%**	**42%**	**33%**	**10%**	**2%**
Racial/ethnic background	**4%**	**10%**	**21%**	**20%**	**45%**

*Personal statement is not always a key factor (UMCP Policy, 1999).
**State limits out-of-state to 30% and requires geographic diversity among in-state admissions.
***when available

Table 6 - Student Responses to Importance of Selection Criteria at Towson

Selection Criteria Listed on Survey	Single Most Important Factor	Very Important	Moderately Important	Minor Factor	Not Considered
High school grades	**32%**	**57%**	**9%**	**1%**	**0%**
Senior year grades	19%	46%	25%	9%	2%
Application essay*	**17%**	**51%**	**28%**	**3%**	**1%**
Geographic residence**	**4%**	**11%**	**27%**	**37%**	**20%**
Exceptional talent	**11%**	**36%**	**38%**	**11%**	**4%**
SAT-I or ACT score	**31%**	**50%**	**14%**	**3%**	**2%**
SAT-II score	24%	38%	24%	12%	2%
AP test score	19%	39%	32%	9%	1%
First generation college student	**4%**	**11%**	**20%**	**29%**	**37%**
First generation in family to speak English	**5%**	**9%**	**15%**	**26%**	**45%**
How much money your family has	**9%**	**18%**	**28%**	**24%**	**21%**
Parents or siblings went to Towson	**6%**	**11%**	**23%**	**25%**	**36%**
Academic reputation of high school***	**12%**	**27%**	**30%**	**21%**	**9%**
Involvement in volunteer work***	**8%**	**32%**	**38%**	**17%**	**5%**
Your rank in graduating class	11%	39%	35%	11%	4%
Involvement in extra-curricular activities***	**14%**	**41%**	**31%**	**12%**	**3%**
Number of college prep courses completed****	**13%**	**36%**	**36%**	**9%**	**6%**
Ability to pay tuition	18%	30%	32%	16%	4%
Letters of recommendation***	**16%**	**37%**	**34%**	**10%**	**2%**
Racial/ethnic background	8%	12%	15%	23%	43%

*in borderline cases (Towson Portfolio, 1999).
**State limitations of out-of-state admissions and geographic diversity among in-state admission.
***borderline cases only
****allowed to make up University of Maryland System deficiencies by end of first semester

Awareness of Affirmative Action

Affirmative action has been quite controversial in recent years. The official University of Maryland System policy (UMCP Catalog, 1999) includes race/ethnicity as a factor listed under the following statement:

> Applicant background information: All of the factors listed below are given some consideration in making enrollment decisions, particularly in cases where test scores and/or GPA may be somewhat lower than is usually acceptable.
>
> First generation college
> First generation English-speaking
> Economically disadvantaged
> Race/ethnicity
> Legacies
> Extenuating circumstances
> Special talents/skills

As mentioned, Maryland universities have autonomy in defining their selection criteria within certain guidelines. Although the above are listed as criteria options by the University System, race/ethnicity is listed by UMCP, but not by Towson. However, as illustrated (Tables 5 and 6), students did not distinguish between the two schools in the importance of specific selection criteria.

Students' perceptions of the use of race or ethnicity as selection criteria may affect which institutions they consider viable options when making their post-secondary choices. Students were asked whether they think race/ethnicity will affect their chances for admission to UM College Park or Towson University (see Table 7 below).

The debate on affirmative action is apparently not perceived as very relevant by students. Over two-thirds of all surveyed students responded that race was either not considered or that they didn't know its effect on admissions to college. Table 7 illustrates that the majority (83%) of white students did not see affirmative action as an issue and few black students viewed it as advantageous.

Table 7 – Student Perceptions of Effect of Race on Admissions

	Positive Effect	Negative Effect	Not Considered	Don't Know
Total Student Responses (N=232)	16%	7%	33%	45%
African American	19%	12%	21%	49%
White	11%	6%	43%	40%

Knowledge of Placement Testing Requirements

Post-secondary remediation has become a Maryland state and national concern. Many high school students may not be able to enroll in their chosen college-level programs, even at open enrollment institutions (typically community colleges with no SAT or minimum high school GPA requirements) without taking a semester or more of remedial course work. Although most post-secondary remediation takes place at community colleges, four year colleges and universities do require certain placement tests and remediation for those who do not pass entrance placement tests in specific subjects (typically mathematics, English and college-level reading). Maryland students are often unaware of the realities of placement tests and their implications (Nunley, 1998).

At UMCP, there are no required placement tests in reading or English. They were discontinued more than five years ago. Placement testing in technological readiness is also not required. However, UMCP does require math placement testing. In Fall 1998, 18% of new UMCP freshmen were placed in Remedial Math based on the math placement test scores.

Towson University requires all students who do not meet specified exemption criteria to take placement tests in reading, English and mathematics. Among 1997-1998 entering Towson students who had completed University System requirements, 11% required developmental English, 6% Reading, and 19% were placed into Remedial Math. For new Towson freshmen who had not completed the University System requirements, the percentages were higher: 18% English; 7% Reading; and 31% Math.

Students were asked to indicate the required placement testing subjects at UMCP and Towson. Table 8 shows student responses to questions on required placement testing at UMCP and Towson University.

Table 8 - Students Indicating Placement Test Requirements/UMCP and Towson

Placement Test Subject	UM College Park	Towson University
English	89%	**87%**
Math	**90%**	**88%**
Laboratory Science	47%	46%
Foreign Language	40%	41%
Advanced Technology	29%	29%

*N=232, multiple response question

The overwhelming majority (87%) were accurate in their indication that Towson requires an English placement test, however, they also indicated similarly (89%) that UMCP requires an English placement test, although only math is required. Additionally, half of the students indicated that both UMCP and Towson required placement testing in laboratory science, when neither have such a requirement, illustrating a lack of knowledge of the specific placement test requirements. Therefore, as evidenced by Table 8, students are aware of the existence of placement tests, particularly in math and science, but they lack detailed knowledge in this area.

Knowledge of Selectivity

In recent years, UMCP has become more selective and has been able to improve the academic credentials among its admission pool. As mentioned earlier, from Fall 1988 to Fall 1999, the mean high school GPA of entering freshmen rose from 2.98 to 3.61 and the percent of entrants with SATs of over 1400 or over increased from less than 4% to 15%. Qualitative criteria are also emphasized in making selections.

Towson University has remained fairly non-selective over the years. The academic credentials of students admitted to Towson have remained stable over the past five years. The selection of entrants is based on quantitative factors (SAT/GPA grid) and enrollment targets. The SAT scores of those admitted remain in the middle range.

When students were asked if they thought that it has become more difficult to gain admission to UM College Park, over three quarters of the students surveyed (77%) answered in the affirmative. A fewer number of students (63%) agreed it had become more difficult to gain admission at Towson, while one-third of the students disagreed.

Students estimated correctly that UMCP has become more selective. However, two-thirds of the students also agreed that Towson had become more selective. Thus students' responses to this item may reflect a concern for how difficult it may be to gain admission to college in general, rather than solid knowledge of recent developments at UMCP, a school that about half of the respondents aspire to attend.

Exposure to Higher Education

One way of connecting high school with college is to provide opportunities for conversations about college and to expose them directly to college campuses. This is especially true for students from families who have not traditionally attended college (NCES, 1998).

Students were asked what types of exposure to higher education they had experienced since entering high school. They were given a list of five choices, including visiting a college or university. Table 9 indicates student responses to this survey item.

Table 9 - College Preparatory Activities since Entering High School

Activities Listed on Survey	Student Responses	
	Yes	
	9th grade	11th grade
Visited a college or university	32%	63%
Participated in varsity athletics	24%	54%
Took an SAT/ACT test prep course	14%	66%
Attended a college information workshop or "college night"	8%	54%

As the figures in Table 10 indicate, few 9th grade students had participated in specified college preparatory activities since entering high school compared with the majority of 11th grade students who had participated in the activities. These data clarify two things: first, a lack of early exposure of students, evidenced by the low percentages of 9th grade students who had participated in these activities; and second a lack of services to a group of about one-third of respondents among 11th graders who were not reached by schools.

To better understand the college choice process and discern the relevance of school in it, we asked students how often they discussed college admission requirements

with parents and other significant individuals. We wanted to know which individuals, especially among school staff, play an important role in this dialogue. Student responses to this question are presented in Table 10 below.

Table 10 - Frequency of Student Discussion of Admission Requirements with Others

Significant others	Many times	Once or twice	Never
Your parent(s)/ guardian(s)	65%	29%	6%
A high school counselor	14%	38%	48%
A high school teacher	14%	47%	39%
Friends/other students	47%	39%	13%
Your brother or sister	25%	31%	44%
Another relative	18%	38%	44%
A family friend	18%	38%	44%
A clergy member (priest, rabbi, etc.)	4%	15%	81%
A college recruiter	7%	21%	72%
A high school coach	9%	22%	70%
A private college counselor	2%	8%	90%

Table 10 illustrates that parents, friends, and siblings were key sources for discussions. Teachers did play a role in these discussions, but frequency of discussions with them was very low. The same was true for college counselors. Almost half of students had discussed the issue with teachers "Once or twice," but only 14% had discussed college requirements with their teachers "Many times". College counselors played a lesser role. Much needs to be done, it seems, to increase schools' involvement in students' decision-making about college.

In order to adequately prepare for college admissions, and to expand perceived post-secondary options, students need early awareness in their educational careers of

what courses will open up their post-secondary opportunities. In order to address when this awareness first occurs, students were asked when they first received advice from school on the proper courses to take to gain admission to college.

Table 11 - Students' First Advice Received on Proper Courses for College

First Advice Received	9th graders (N=120)	11th graders (N=100)
8th grade or earlier	54%	21%
9th grade	28%	33%
10th grade	0%	23%
11th grade	0%	10%
I haven't received any advice	18%	13%

Table 11 illustrates that the 9th graders of today may receive more advice on what courses to take in high school to prepare for college than the 9th graders of yesterday. While 54% of the 11th graders had received advice on the proper courses to take for college admission in the 8th grade or earlier, 82% of the 9th graders had received this advice. It is conceivable however, that 11th graders simply did not remember earlier instances, while the 9th graders' memory of middle school was still fresh. It is encouraging that when it comes to advice on course taking, most students received advice from school at some point in their careers.

Summary of Quantitative Findings

Findings are based on the preliminary descriptive analysis of the student survey data collected from 232 students in their 9th and 11th grade English classes in two Maryland jurisdictions during the Spring, 2000 school term. Several key findings emerge

from the data. First, the surveyed Maryland high school students tend to aspire to 4-year college attendance outside of Maryland, although almost half of students did indicate considering UMCP as a potential post-secondary choice. These high aspirations are not matched by their grade point averages or the reality of college choice in Maryland.

Secondly, students are generally unaware of the specifics of college admissions requirements, recommended high school courses, and selection processes for those universities for which their schools are important feeders. An exception is their knowledge about the importance of high school grades and the SAT. Students could not distinguish between more selective UMCP and less selective Towson.

Although a sizable number of Maryland high school graduates will require post-secondary remediation in math, reading, or English prior to being admitted into college-level courses, they did not illustrate knowledge of the specific placement test requirements at Towson and UMCP. Overall, their knowledge was fuzzy and incorrect on many points.

Schools' involvement in the college choice process is sketchy and infrequent. Schools do a better job at giving advice about course taking, but are remiss in informing students of the essentials of the admissions process.

Qualitative Interview Data

The qualitative segment of Phase II of the Maryland case study consists of interviews with eight teachers at four schools, 4 counselors and principals, as well as focus groups with eleventh graders. For this paper, we present preliminary findings from interviews with seven English teachers and three guidance counselors from four schools.

In our analysis for this paper we focus on the role of schools in connecting high school students to college. To this end, we inquired about students' interest in communicating with teachers about the college choice process, educators' knowledge of college admissions in the state of Maryland, the type of information they share with their students, and the way they define their role in the college preparation process. We will contrast data from teachers with data collected from guidance counselors and principals.

Students' Interest in Communication with Teachers

According to the interviews with teachers, students showed great interest in talking with their teachers and frequently asked them questions about college. When asked if students came to them with questions, teachers responded: "Yes, they always want to know where I went to school." (B11-2), or: "All the time. I have both 11th and 12th grade classes, and of course both of them are intensely interested in anything they can learn about college." (D11-1). While students' articulated interest in communication seemed a fairly common occurrence, frequency of communication may actually be low. According to student responses on the quantitative analysis, about half of the students talked to teachers only once or twice. Ninth grade teachers confirmed that in the lower grade level students asked them questions less frequently than older students did. One teacher claimed that no conversation of college took place in her classes. That teacher said she avoided conversation about college because she had only been a teacher for three years and did not want to give students the impression that she was new to the profession.

Teachers' Knowledge of the College Admissions Process in Maryland

Through the interviews we wanted to find out what teachers knew about admissions policies and procedures, college placement exams, and their former students' performance record at the college level. When asked about their knowledge of admissions policies and procedures at the UMCP, Towson and other colleges, teachers responded as follows:

> I guess I know what everyone else knows. The approximate SAT scores. The idea that they like to see an active well-rounded student. (D9-1)

> I don't really know that much about College Park. Towson I attended a few years ago. I was a transfer student from another college and I got a scholarship, so what else, I don't know. (C4)

> I know nothing. I'm from Pennsylvania and I went to college in Pennsylvania, so I know nothing. I could probably guess there would be the same things [as in Pennsylvania] or that the expectations would be a little higher. But to be factual, I don't know anything. (D11-2)

> I know that College Park is working to become more competitive, so I've heard that their minimum SAT score is around 1200, and then that varies. I think that if you complete community college in Maryland it's quite easy to transfer. I don't know about GPA's, what the requirements are, but I would say that probably at least a B, maybe higher. Towson I know, it's another school, they became a university. I know that they are looking to become more competitive. I don't know what their minimum scores are. (D11-1)

The most frequent knowledge teachers possessed about college admissions were related to the SAT. A few teachers actually knew the SAT ranges for UMCP. One teacher mentioned some admissions requirements such as the letters of recommendation and the essay. Mostly, teachers felt uninformed, and sometimes embarrassed about it. Two teachers felt more comfortable with their knowledge of admissions requirements. But even they had to pass when asked about specifics. One of those teachers had previously served as a guidance counselor:

> I think my knowledge is probably as good as, maybe slightly better than most ninth grade teachers because of my guidance background. But I know there have been some changes and I know for a fact that it's becoming more challenging to get into the state system than it has been in the past. And my guess is that the standards continue to rise each year, but I don't know that for sure. (C2)

The interviews touched upon college placement tests. Considering that we inquired about the two largest public universities in the state for which the schools are primary feeders, information about these tests could be quite useful to teachers in gauging adequate college preparation standards. We found that most teachers were completely uninformed about placement and unaware of the issue of remediation. Asked about freshman knowledge standards, some interview partners reflected back to their own experiences: "I simply remember what I took a thousand years ago." (C3). Another teacher commented: "I've never seen [a placement test], so all of my presumptions are based on my experience with the placement test ten years ago at a state college." (B11-2) One teacher expressed astonishment: "No kidding, every freshman has to take these tests?" (A11-2)

When asked if they received any feedback on whether or not their former students had had success in college, one teacher responded, "No, unfortunately we only hear about that when students come back to say to you, either I'm doing well when compared to everyone else or I'm struggling." (A9-2). Another teacher described the lack of feed-back this way: "I haven't ever received [information], maybe our twelfth grade teachers would. But I haven't received anything." (C1). Though some schools did receive data on students' college acceptance and scholarship awards, most teachers did not receive any formal and systematic feedback on their former students' success in college. One of our interview partners concluded in these vivid terms:

> I think one of the problems in our educational system is, there is no link once kids graduate from high school. It's as if they aren't our kids anymore, and that is not the case for K-12. There is a scope and a sequence and there are learning activities that are supposed to go on throughout the 12 years. Then they drop off the face of the earth. (D11-2)

According to information gathered in the first phase of this project, schools are supposed to receive the so-called SOAR data (see part I of this paper). SOAR data track students' success at the college level by high school attended. These data have the potential to provide systematic feedback to schools, but were not mentioned in any of our interviews.

Information Teachers Provide

The interviews inquired about the conversations teachers engaged in when asked by students about college. While responses varied, most commonly teachers would tell stories and anecdotes about their own college experiences:

> I tell them I was assigned Moby Dick on Friday and it was due Monday and that was my weekend. And I do the same with my kids, just two weeks ago, I said okay we finished Huck Finn, it's Wednesday, a paper is due Friday. And that's it for the instruction. That is what will happen. (C3)

> I have conversations about things I went through in high school, a lot. Things I went through in college. What difficulties I overcame. What bad habits I had and how they can avoid some of the things I did wrong. (D9-1)

> I'm currently working on my master's at Johns Hopkins, so they know that I have obligations with them, and I have told them that I went to University of Maryland as motivators many times because those are two schools that are accessible to these students. (D11-1)

Given that teachers lacked solid and accurate knowledge about the college admission process, this emphasis on anecdotes and stories is not surprising. While students may benefit from teachers' vivid personal experiences, they are also in need of current and detailed knowledge to devise appropriate strategies for their own college choice process.

This kind of knowledge is absent from teacher-student communication about college in the schools we studied.

Teachers' View of Their Role in the College Choice Process

Teachers envisioned their role in students' college choice process as limited, like this eleventh grade teacher: "I don't sit down and have heart-to-heart conversations with them about what they need to do to be ready for college. That's, more or less, [what] the counselors drone into them." (B11-2). Teachers held students responsible for their own progress and motivation to succeed. Parental guidance was seen as essential, as well: "I think we have got a middle group -- and a lot of public schools are facing the same thing -- they really don't have the direction; the parents haven't inspired that in them." (B9-1). Teachers deferred to the authorities when asked how they knew they were doing an adequate college-preparatory job in their classrooms: "Well, I guess, I also see that as my county's responsibility. I am expected to teach my county's curriculum. My county's curriculum is designed to prepare them for college." (B11-1)

Whereas teachers assigned limited responsibility to themselves when it came to the provision of information (the counselors' task), the adequacy of standards (policy makers' task), and the motivation for college (students' and parents' task), they saw their college-preparatory work primarily expressed in classroom instruction:

> I try to explain to them, in my class anyway, with the pace, the tone I set in my classroom, the level of responsibility. Independent responsibility. I don't haggle with them over assignments. I don't keep reminding them over and over when things are due. They have independent things that they have to have done by a completion date. So I think I try to model ethics, study ethics and guidelines that they would have in a university situation. (A11-2)

> I teach an AP course which is taught at the college level. When I give them something to do, they know I am challenging them at a higher level than an on-level 11th grade class, and I always tell them it's because I think they need to be more prepared for college, and I am challenging them at a higher level because I think a lot of teachers don't. (A11-1)

Thus, when teachers construct their role in students' college choice process, they are primarily classroom instructors. Their lack of detailed knowledge and the informal and sporadic nature of student-teacher interactions about college are not of great concern to them because the college choice process is seen as falling outside their responsibility. Often, our interviews prodded teachers to see the missing link between secondary and higher education as a problem. But first and foremost, in teachers' minds that link needed to be forged by the counseling department.

Counselors

Counselors at the four schools acted as the primary knowledge source for information on college admissions. Often they counseled students one-on-one, sometimes they worked through teachers:

> Today is the college fair. Guidance [counseling] came to all my eleventh grade classes and told them about the college fair and gave them permission slips. They do speak to every class and every kid. (A11-1)

> Counselors come in frequently to provide college fair information. Counselors come in to encourage them about what looks good to different universities and colleges. (B11-2)

Counselors had a better connection to colleges than teachers. Higher education institutions tended to seek out the college counselors to share timely information. Counselors felt as experts in the field of students' college choice, such as this counselor:

> Well, every year College Park invites our local counselors on campus for a review of what the admissions procedures are. As you might know, the procedures at

> College Park have been changing very much lately. The students that easily got into College Park in the early part of the nineties aren't getting in now. The ability to get into that University is becoming more and more difficult because their standards are going up. And then the same with Towson. Towson visits us every year, gives us information, and also invites us onto campus. Same with Baltimore County, Eastern Shore. We are well informed by all the Maryland state schools. (C11-2)

The guidance counselors in this study recounted that they generally begin advising students on college as early as the 9th grade. Counselors also believed it was their job to match student aspirations with actual course taking and preparation: "I say to students that you can't be a twelfth grader and decide that you want to go to Duke University and you haven't done the work in grades 9, 10, 11." (C5) Many students confirmed on the survey that they had received advice on course taking, some of the students quite early in their careers.

Counselors, it seems, held almost a monopoly on college admission preparation in the four schools. As previously mentioned, teachers looked to counselors to provide support to their students through one-on-one counseling, college fairs, and hosting college representatives on campus. Principals, as well, lacked detailed knowledge of the college choice process and referred to their counselors as the experts in this field. But all counselors in this study had duties that went beyond college preparation, or transition counseling. None of the interviewed counselors spent their entire work hours on college counseling because they were required to cover other personal issues as well. In the four schools we studied, counselors were assigned a portion of the student body as their caseload. One school had six counselors to serve 1800 students, so each counselor was responsible for 300 students. Another school had five counselors for 1700 students. Yet, even with these heavy caseloads and multiple responsibilities, guidance counselors were

the only ones at their schools to provide information to students, parents, and teachers and to serve as the primary contact for college representatives and recruiters. It is no wonder that about half of the surveyed students reported no communication with their counselors on college admission.

In summary, teachers in the four schools studied in this research tended to be sought out by students interested in information about college. Teachers lacked a solid knowledge base on admissions and placement. The information they shared was often anecdotal and based on teachers' own college days. Interviewed teachers did not see this state of affairs as a great problem as they constructed their roles and responsibilities in the college choice process as very limited. Counselors were the primary service providers, but their case overload made on-going contact with students difficult.

Summary

The preliminary analysis of quantitative student data and qualitative teacher data paints a picture of confusion and disconnect. We will briefly highlight our main findings. Due to the preliminary stage of our work we will refrain in this paper from interpretations of the descriptive data. The data can be summarized as follows:

- A large proportion of sampled students in Maryland either wishes to attend a four-year college outside of the state or the most selective University of Maryland campus in College Park.
- Knowledge about costs, course requirements, selection criteria, and placement is very fuzzy with regard to college in general and the two focal institutions, UMCP and

Towson University. Mostly, students overestimate admissions requirements and grossly overinflate the costs for a college education.

- Students do not have a grasp of differential levels of selectiveness with regard to Towson and UMCP. Ratings for both schools are rather similar. Students, on the whole, believe that it is becoming increasingly difficult to gain admission to either school. Informed decision making gives way to a diffuse sense of college scare.
- Affirmative action is not an issue for most students. Neither whites nor blacks attach much meaning to it. Ignorance pre-dominates. This peculiar attitude may find an explanation in the specific low-selectivity context of Maryland public higher education.
- Schools do not engage in frequent communications about college choice with students, though about half of the students report some contact. Students' interest in communicating with teachers about college choice is high according to interviewed teachers. About one third of sampled students is seriously underserved by their schools with respect to college choice information.
- According to students' responses, schools seem to do a better job in counseling students about course-taking than about college choice. This is confirmed by teachers who in the interviews indicate courses as an important domain of college preparation that falls within their duties.
- Not unlike the situation for students, teachers' knowledge is fuzzy according to the small number of interviews analyzed so far. Teachers do not have accurate information on admissions criteria, nor do they know placement criteria and standards employed by institutions, such as UMCP or Towson. They do not receive data on

students' careers in higher education. Feed-back depends on private and informal contact between students and teachers.

- Communication between students and teachers about college is mainly informal and sporadic, though teachers report student interest in such communication.
- Lacking accurate knowledge themselves, teachers tend to share stories about their own college days. Teachers also use their own college experience to construct present-day college preparatory standards. Thus, much of what teachers dispense as knowledge about the college choice process is based on folk wisdom and apprenticeship of observation.
- Teachers do not see for themselves a substantial role in students' college choice process. College choices are determined by circumstances out of teachers' control. On the student side, they see students' pervious performance record, their motivation, and parental influences as key. On the system side, they believe it is the duty of the authorities to see to it that official curricula and materials reflect adequate standards. Teachers' role is to teach in the spirit of college preparation.
- Guidance counselors see themselves, and are seen by others, as key sources in students' college choice process. Teachers defer to them and expect information from them. Universities, as well, reach out to them. Principals, too, refer to them when asked about the school's role in the college choice process. While counselors are central in the process at their school, they express feeling overburdened by high case loads and distracted by many other guidance duties.
- The new high school assessments, announced by the state to be graduation requirements in the not so distant future, are of little concern for educators as far as

college admissions are concerned. Neither are teachers certain about the fate of these assessments, nor do they make a connection between them and college admission.

Further analysis will have to corroborate these findings for various student sub-groups, parents, and larger numbers of educators.

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